



DRAFT
Recirculated Program Environmental Impact Report
Fresno Southeast Development Area Specific Plan Project
City of Fresno, Fresno County, California

State Clearinghouse Number 2022020486

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Table of Contents

Acronyms and Abbreviations	ix
Executive Summary	ES-1
Purpose.....	ES-1
Project Summary	ES-1
Significant Unavoidable Adverse Impacts	ES-3
Areas of Controversy	ES-7
Reasons for Recirculation	ES-8
Public Review of the Recirculated Draft Program EIR	ES-9
Executive Summary Matrix.....	ES-11
Chapter 1: Introduction.....	1-1
1.1 - Overview of the CEQA Process	1-1
1.2 - Scope of the Draft Program EIR	1-5
1.3 - Organization of the Recirculated Draft Program EIR	1-23
1.4 - Documents Incorporated by Reference.....	1-25
1.5 - Documents Prepared for the Proposed Project	1-26
1.6 - Review of the Recirculated Draft Program EIR	1-26
Chapter 2: Project Description	2-1
2.1 - Specific Plan Approval Process	2-1
2.2 - Existing	2-3
2.3 - Project Characteristics	2-7
2.4 - Project Objectives.....	2-17
2.5 - Intended Uses of this Draft Program EIR.....	2-19
Chapter 3: Environmental Impact Analysis	3-1
Organization of Issue Areas	3-1
Issues Addressed in this Recirculated Draft Program EIR.....	3-1
Level of Significance	3-1
Impact Analysis and Mitigation Measure Format	3-2
3.1 - Aesthetics, Light, and Glare	3.1-1
3.2 - Agricultural Resources and Forestry Resources	3.2-1
3.3 - Air Quality.....	3.3-1
3.4 - Biological Resources	3.4-1
3.5 - Cultural Resources and Tribal Cultural Resources	3.5-1
3.6 - Energy	3.6-1
3.7 - Geology, Soils, and Seismicity.....	3.7-1
3.8 - Greenhouse Gas Emissions	3.8-1
3.9 - Hazards and Hazardous Materials	3.9-1
3.10 - Hydrology and Water Quality	3.10-1
3.11 - Land Use and Planning	3.11-1
3.12 - Mineral Resources	3.12-1
3.13 - Noise.....	3.13-1
3.14 - Population and Housing	3.14-1
3.15 - Public Services	3.15-1
3.16 - Recreation	3.16-1
3.17 - Transportation and Traffic	3.17-1
3.18 - Utilities and Service Systems	3.18-1

3.19 - Wildfire	3.19-1
Chapter 4: Other CEQA Considerations.....	4-1
4.1 - Significant Unavoidable Impacts.....	4-1
4.2 - Growth-inducing Impacts	4-5
4.3 - Mandatory Findings of Significance	4-6
Chapter 5: Alternatives to the Proposed Project.....	5-1
5.1 - Introduction	5-1
5.2 - Project Objectives	5-11
5.3 - Alternative 1—No Project Alternative	5-12
5.4 - Alternative 2—Consolidated Business Park Alternative	5-18
5.5 - Alternative 3—Farmland Conservation Alternative.....	5-26
5.6 - Environmentally Superior Alternative.....	5-31
5.7 - Alternatives Rejected From Further Consideration	5-33
Chapter 6: Persons and Organizations Consulted/List of Preparers	6-1
6.1 - Lead Agency	6-1
6.2 - List of Preparers	6-1

List of Appendices

Appendix A: EIR Noticing and Public Involvement

- A.1 - Notice of Preparation
- A.2 - NOP Public Scoping Comments
- A.3 - Draft PEIR Public Comments
- A.4 - Partial Recirculated Draft PEIR Public Comments

Appendix B: Air Quality, Greenhouse Gas Emissions Supporting Information

Appendix C: Biological Resources Supporting Information

- C.1 - California Natural Diversity Database Results
- C.2 - California Native Plant Society Inventory Results
- C.3 - Project Species List

Appendix D: Cultural and Tribal Cultural Resources Supporting Information

- D.1 - Record Search Maps
- D.2 - California Historical Resources Information System Requests and Results
- D.3 - Native American Heritage Commission Requests and Results

Appendix E: Energy Supporting Information

Appendix F: Hydrology and Water Quality Supporting Information

Appendix G: Noise Supporting Information

Appendix H: Transportation Supporting Information

Appendix I: Utilities and Services Systems Supporting Information

- I.1 - Water Supply Assessment
- I.2 - Utilities Technical Study

List of Tables

Table ES-1: Executive Summary Matrix	ES-13
Table 1-1: NOP Comment Letters	1-5
Table 2-1: Proposed Specific Plan Acreages	2-8
Table 3.2-1: Description of Farmland Classifications	3.2-6
Table 3.3-1: Air Quality Monitoring Summary.....	3.3-4
Table 3.3-2: Air Quality Index and Health Effects from Ozone	3.3-5
Table 3.3-3: Air Quality Index and Health Effects of Particulate Pollution	3.3-6
Table 3.3-4: San Joaquin Valley Air Basin Attainment Status	3.3-9
Table 3.3-5: Description of Air Pollutants	3.3-12
Table 3.3-6: San Joaquin Valley Air Pollution Control District Significance Thresholds.....	3.3-38
Table 3.3-7: Screening Levels for Potential Odor Sources	3.3-40
Table 3.3-8: Annual Construction Regional Emissions—Unmitigated	3.3-48
Table 3.3-9: Project Net Annual Operational Emissions—Unmitigated (2050)	3.3-51
Table 3.4-1: Vegetation Communities within the City	3.4-2
Table 3.4-2: Vegetation Community Types and Description.....	3.4-2
Table 3.4-3: Vegetation Communities within the Plan Area.....	3.4-7
Table 3.4-4: Special-status Plant Species within the Plan Area	3.4-13
Table 3.4-5: Special-status Wildlife Species within the Plan Area	3.4-14
Table 3.5-1: Cultural Resources Recorded within the Plan Area	3.5-18
Table 3.5-2: Previous Investigations within the Plan Area.....	3.5-19
Table 3.8-1: Description of Greenhouse Gases of California Concern.....	3.8-4
Table 3.8-2: Construction Greenhouse Gas Emissions	3.8-42
Table 3.8-3: Operational GHG Emissions at Project Buildout.....	3.8-43
Table 3.8-4: Consistency with the 2022 Scoping Plan	3.8-44
Table 3.9-1: Facilities Listed on the DTSC EnviroStor Database	3.9-4
Table 3.9-2: Geotracker Sites in the Plan Area	3.9-5
Table 3.10-1: Drainage Areas and Basin Capacities	3.10-12
Table 3.10-2: General Plan and Specific Plan Anticipated Runoff Volume for Existing Basins Encompassed within SEDA Specific Plan Area	3.10-45
Table 3.10-3: General Plan and Specific Plan Anticipated Runoff Volume for Proposed Basins within SEDA Specific Plan Area	3.10-46
Table 3.11-1: General Plan Consistency Analysis.....	3.11-24
Table 3.13-1: Sound Terminology	3.13-2

Table 3.13-2: Typical Construction Equipment Maximum Noise Levels	3.13-4
Table 3.13-3: Vibration Levels of Construction Equipment.....	3.13-6
Table 3.13-4: Existing (Year 2019) Traffic Noise Levels.....	3.13-9
Table 3.13-5: Federal Transit Administration Construction Vibration Impact Criteria	3.13-10
Table 3.13-6: Transportation (Non-Aircraft) Noise Source.....	3.13-14
Table 3.13-7: Stationary Noise Sources.....	3.13-15
Table 3.13-8: Year 2035 Forecast Traffic Noise Levels Without and With the Proposed Project	3.13-22
Table 3.14-1: Projected (2050) Jobs to Housing Ratio for the Planning Area	3.14-14
Table 3.15-1: Fresno Fire Stations	3.15-2
Table 3.15-2: School Districts and Schools in the Project Area	3.15-6
Table 3.15-3: School District and School Enrollment by Grade.....	3.15-7
Table 3.15-4: City of Fresno Park Types	3.15-8
Table 3.15-5: City of Fresno Hospitals.....	3.15-9
Table 3.16-1: Existing Pocket, Neighborhood, and Community Parks	3.16-2
Table 3.16-2: Desirable Park Facility Standards.....	3.16-3
Table 3.17-1: Existing Conditions Study Segment Traffic Volumes	3.17-9
Table 3.17-2: Existing Conditions VMT.....	3.17-10
Table 3.17-3: Roadway Functional Class and Peak-hour LOS Thresholds	3.17-27
Table 3.17-4: LOS Thresholds for Daily Segment Volumes based on V/C Ratios.....	3.17-28
Table 3.17-5: Proposed Project Trip Generation	3.17-32
Table 3.17-6: Year 2035 No Project Conditions VMT	3.17-35
Table 3.17-7: Year 2035 With Project Conditions VMT	3.17-35
Table 3.17-8: 2035 Project and No Project Queue Analyses Results	3.17-37
Table 3.17-9: Year 2035 Baseline (No Project) Conditions Study Segment Traffic Volumes	3.17-41
Table 3.17-10: Year 2035 Baseline (No Project) Conditions Study Segment LOS.....	3.17-42
Table 3.17-11: Year 2035 With Project Conditions Study Segment Traffic Volumes.....	3.17-43
Table 3.17-12: Year 2035 With Project Conditions Study Segment LOS	3.17-44
Table 3.18-1: Specific Plan Anticipated Water Demand per Land Use Classification.....	3.18-57
Table 3.18-2: Difference Between General Plan and Specific Plan Anticipated Water Demand	3.18-58
Table 3.18-3: Comparison of General and Specific Plan Anticipated Wastewater Generation per Land Use Classification.....	3.18-61
Table 3.18-4: General Plan and Specific Plan Anticipated Runoff Volume for Existing Basins Encompassed within SEDA Specific Plan Area.....	3.18-62

Table 3.18-5: General Plan and Specific Plan Anticipated Runoff Volume for Proposed Basins within SEDA Specific Plan Area	3.18-63
Table 3.18-6: Multiple Dry Years Supply and Demand Comparisons (DWR 7-4R) (2020 UWMP Table 7-3)	3.18-66
Table 5-1: Summary of Alternatives	5-32

List of Exhibits

Exhibit 1-1: Specific Plan Map	1-3
Exhibit 2-1: Regional Location Map	2-5
Exhibit 2-2: Specific Plan Map	2-9
Exhibit 2-3: Proposed Major Street Circulation Network	2-15
Exhibit 3.2-1: Important Farmland Map	3.2-3
Exhibit 3.2-2: Williamson Act Contract Parcels	3.2-19
Exhibit 3.4-1: Land Cover Types and Vegetation Communities	3.4-5
Exhibit 3.4-2: CNDDB Special-status Species Occurrences	3.4-11
Exhibit 3.10-1: Flood Hazard Map	3.10-15
Exhibit 3.11-1: Existing General Plan Land Use Map	3.11-39
Exhibit 3.17-1: Proposed Major Street Circulation Network	3.17-3
Exhibit 5-1: Consolidated Business Park Alternative	5-7
Exhibit 5-2: Farmland Conservation Alternative	5-9

List of Figures

Figure 3.8-1: Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019	3.8-8
Figure 3.8-2: Observed and Projected Temperatures for Climate Change in the City of Fresno Area	3.8-11
Figure 3.8-3: California’s Path to Achieving the 2050 Target	3.8-51

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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius (Centigrade)
°F	degrees Fahrenheit
µg/m ³	micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACHP	Advisory Council on Historic Preservation
ACLUP	Airport Comprehensive Land Use Plan
ACM	asbestos-containing material
ACP	Alternative Compliance Plan
ADA	Americans with Disabilities Act
ADL	aerially deposited lead
ADT	Average Daily Traffic
AEP	Association of Environmental Professionals
AF	acre-feet
AFY	acre-feet/year
AIA	Airport Influence Area
AIC	Archaeological Information Center
AICUZ	Air Installation Compatibility Use Zone
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plans
AMSL	above mean sea level
APCD	Air Pollution Control District
APE	Area of Potential Effect
APN	Assessor's Parcel Number
APS	Alternative Planning Strategy
AQI	Air Quality Index
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
AQP	Air Quality Plan
ARB	California Air Resources Board
ARFF	Airport Rescue Fire Fighting
AST	aboveground storage tank
ATCM	Airborne Toxic Control Measures
ATP	Active Transportation Plan

Acronyms and Abbreviations

BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
BART	Bay Area Rapid Transit
BAU	Business as Usual
BCF	billion cubic feet
BCF/year	billion cubic feet per year
BGS	below ground surface
BMP	Best Management Practice
BPS	Best Performance Standards
BRT	Bus Rapid Transit
BTU	British Thermal Unit
BVOC	biogenic volatile organic compound
C ² ES	Center for Climate and Energy Solution
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAGR	compound annual growth rate
CAL FIRE	California Department of Forestry and Fire Protection
Cal/EPA	California Environmental Protection Agency
Cal/OES	California Governor's Office of Emergency Services
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	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARTS	Cedar Avenue Recycling and Transfer Station
CBC	California Building Standards Code
CBCP	dibromochloropropane
CBCP	dibromo-chloropropane
CBSC	California Building Standards Commission
CCAA	California Clean Air Act
CCCC	California Climate Change Center
CCR	California Code of Regulations
CDF	California Department of Finance
CDFW	California Department of Fish and Wildlife
CDMG	California Division of Mines and Geology

CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
CH ₄	methane
CHL	California Historical Landmarks
CHRIS	California Historical Resources Information System
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society Electronic Inventory
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO ₂ e	carbon dioxide equivalent
COG	Council of Governments
CPHI	California Points of Historical Interest
CPTED	Crime Prevention Through Environmental Design
CPUC	California Public Utilities Commission
CRA	Cultural Resources Assessment
CRHR	California Register of Historical Resources
CSA	Community Service Area
CTR	California Toxics Rule
CUPA	Certified Unified Program Agency
CVP	Central Valley Project
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
dBA/DD	A-weighted decibel per each doubling of the distance
DBCP	dibromochloropropane
DBH	diameter at breast height
DPM	diesel particulate matter
DSP	District Services Plan
DTSC	California Department of Toxic Substances Control
du	dwelling unit
du/acre	dwelling unit per acre

Acronyms and Abbreviations

DWR	California Department of Water Resources
EDB	ethylene dibromide
EDD	California Employment Development Department
EFF	effective firefighting force
EIA	United States Energy Information Administration
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act
EMFAC	Emission Factor
EOC	Emergency Operations Center
EPA	United States Environmental Protection Agency
EPO	Emergency Preparedness Officer
ESMP	Environmental Site Management Plan
ETWU	Estimated Total Water Usage
EV	electric vehicle
FAA	Federal Aviation Administration
FAR	floor area ratio
FAT	Fresno Yosemite International Airport
FAX	Fresno Area Express
FBO	Fixed Base Operator
FCEHD	Fresno County Environmental Health Division
FCMA	Fresno-Clovis Metropolitan Area
FCS	FirstCarbon Solutions
FEMA	Federal Emergency Management Agency
FFD	Fresno Fire Department
FGC	Fish and Game Code
FGFPD	Fig Garden Fire Protection District
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FID	Fresno Irrigation District
FIP	Flood Insurance Program
FIRM	Flood Insurance Rate Map
FMC	Fresno Municipal Code
FMFCD	Fresno Metropolitan Flood Control District
FMMP	Farmland Mapping and Monitoring Program
FPPA	Farmland Protection and Policy Act
FresnoABM	Activity Based Travel Demand Model
ft-L	footlambert
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts

GHG	greenhouse gas
GIS	Geographic Information Systems
GPCD	gallons per capita per day
gpd/ad	gallons per day per acre
gpm	gallons per minute
GPS	Global Positioning System
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
GWh	gigawatt-hours
GWh/y	gigawatt-hours per year
GWP	global warming potential
HAP	Hazardous Air Pollutants
HCD	California Department of Housing and Community Development
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HEPA	high-efficiency particulate air
HFC	hydrofluorocarbon
HHW	household hazardous waste
HMRT	Hazardous Materials Response Team
HOV/HOT	High Occupancy Vehicle/High Occupancy Toll
HRA	Health Risk Assessment
HRI	California Historic Resources Inventory
HUD	Department of Housing and Urban Development
HVAC	heating, ventilation, and air conditioning
HWCL	Hazardous Waste Control Law
I/I	Infiltration and Inflow
IGSM	Integrated Groundwater and Surface Water Model
IIJA	Infrastructure Investment and Jobs Act
in/sec	inches per second
IOU	investor-owned utility
IPaC	Information for Planning and Consultation
IPCC	United Nations Intergovernmental Panel on Climate Change
ISO	Independent System Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITS	Intelligent Transportation System
kBTU	kilo-British Thermal Unit
kW	kilowatts
LAFCo	Local Agency Formation Commission

Acronyms and Abbreviations

LBP	lead-based paint
LCFS	Low Carbon Fuel Standard
L _{dn}	day/night average sound level
LED	light-emitting diode
LEED™	Leadership in Energy and Environmental Design
L _{eq}	equivalent sound level
LEV	Low Emission Vehicle
L _{max}	maximum noise/sound level
LOS	Level of Service
LRA	Local Responsibility Area
LSE	load-serving entities
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
Metro Plan	Metropolitan Water Resources Management Plan
MFCP	Model Farmland Conservation Program
mg/L	milligrams per liter
mgd	million gallons per day
MJHMP	Multi-Jurisdictional Hazard Mitigation Plan
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MOU	Memorandum of Understanding
mph	miles per hour
MPO	Metropolitan Planning Organization
MRF	Material Recovery Facilities
MRZ	Mineral Resources Zone
MS4	Municipal Separate Storm Sewer System
MT	metric tons
MTS	Metropolitan Transportation System
MTT	million metric tons
MW	megawatt
MWD	Metropolitan Water District of Southern California
MWELO	Model Water Efficient Landscape Ordinance
MXD	mixed-use development
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAP-21	Moving Ahead for Progress in the 21 st Century Act
NASA	National Aeronautics and Space Administration

NCCP	Natural Community Conservation Plan
NDC	nationally determined contributions
NEHRP	National Earthquake Hazards Reduction Program
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NESWTF	Northeast Surface Water Treatment Facility
NEV	Neighborhood Electrical Vehicle
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NFWRF	North Fresno Wastewater Reclamation Facility
NHM	Natural History Museum of Los Angeles County
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NIMS	National Incident Management System
NO ₂	nitrogen dioxide
NOAA Fisheries	National Marine Fisheries Service
NOC	Notice of Completion
NOP	Notice of Preparation
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRA	Natural Resources Agency
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	New Source Review
NTR	National Toxics Rule
NWIC	Northwest Information Center
O&M	Operations and Maintenance
O ₃	ozone
OAL	Office of Administrative Law
OEHHA	California Office of Environmental Health Hazard Assessment
OHWM	ordinary high water mark
ONAC	Federal Office of Noise Abatement and Control
OPR	Governor's Office of Planning and Research
OS	Open Space
OSHA	Occupational Safety and Health Administration
PARCS	Parks After School, Recreation and Community Services
PCB	polychlorinated biphenyl

Acronyms and Abbreviations

PCE	tetrachloroethylene
pCi/L	picocuries per liter
PDO	Property Damage Only
PDWF	Peak Dry Weather Flow
PEIR	Program Environmental Impact Report
PFC	perfluorocarbon
PG&E	Pacific Gas and Electric Company
Phase I ESA	Phase I Environmental Site Assessment
PM ₁₀	particulate matter, including dust, 10 micrometers or less in diameter
PM _{2.5}	particulate matter, including dust, 2.5 micrometers or less in diameter
ppb	parts per billion
ppm	parts per million
ppt	parts per trillion
PPV	peak particle velocity
PRC	Public Resources Code
PVC	polyvinyl chloride
PWWF	Peak Wet Weather Flow
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
Recology	Integrated Resource Recovery Company
RecycleSmart	Central Contra Costa County Solid Waste Authority
REL	Reference Exposure Level
RHNA	Regional Housing Needs Allocation
RMP	Risk Management Plan
rms	root mean square
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RTM	Regional Transmission Main
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
RWRF	Regional Wastewater Reclamation Facility
SARA	Superfund Amendments and Reauthorization
SB	Senate Bill
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy
SEDA	Southeast Development Area
SEGA	Southeast Growth Area
SEMS	Standardized Emergency Management System

SESWTF	Southeast Surface Water Treatment Facility
SF ₆	sulfur hexafluoride
SFHA	Special Flood Hazard Area
SFPUC	San Francisco Public Utilities Commission
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SJVAB	San Joaquin Valley Air Basin
SMARA	California Surface Mining and Reclamation Act
SO ₂	sulfur dioxide
SOI	Sphere of Influence
South Coast AQMD	South Coast Air Quality Management District
SPCC	Spill Prevention, Control, and Countermeasure
SR	State Route
SRTP	Short Range Transit Plan
SSJVIC	Southern San Joaquin Valley Information Center
SSMP	Sewer System Management Plan
SSO	sanitary system overflow
State Water Board	California State Water Resources Control Board
SWIS	Solid Waste Information System
SWPPP	Storm Water Pollution Prevention Plan
SWTF	Surface Water Treatment Facility
TAC	toxic air contaminants
TAF	Transportation Analysis Framework
TAM	Transit Asset Management
T-BACT	Best Available Control Technology for Toxics
TCE	trichlorethylene
TCM	transportation control measures
TCP	trichloropropane
TDM	Transportation Demand Management
TDS	total dissolved solids
TDV	Time Dependent Valuation
TEA-21	Transportation Equity Act for the 21 st Century
Tg	teragram
TGM	Transmission Grid Main
therms/y	therms per year
TIA	Traffic Impact Analysis
TIP	Transportation Improvement Program
TIS	Traffic Impact Study

Acronyms and Abbreviations

TMA	Transportation Management Association
TMDL	Total Maximum Daily Load
TOD	Transit Oriented Development
TPM	Transportation Performance Management
TSCA	Toxic Substances Control Act
TSM	Transportation Systems Management
UBC	Uniform Building Code
UFC	Uniform Fire Code
UNFCCC	United Nations Framework Convention on Climate Change
USACE	United States Army Corps of Engineers
USAR	Urban Search and Rescue
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
UWMPA	Urban Water Management Plan Act
V/C	volume to capacity ratio
Valley Air District	San Joaquin Valley Air Pollution Control District
VCP	vittrified clay pipe
VdB	velocity in decibels
VDECS	Verified Diesel Emission Control Strategies
VMT	Vehicle Miles Traveled
VOC	volatile organic compounds
WATERS	Watershed Assessment, Tracking, and Environmental Results System
WDR	Waste Discharge Requirements
WQMP	Water Quality Management Plan
WRI	World Resources Institute
WSA	Water Supply Assessment
WWTP	Wastewater Treatment Plant
ZEV	Zero-Emission Vehicle

EXECUTIVE SUMMARY

Purpose

This Recirculated Draft Program Environmental Impact Report (Recirculated Draft PEIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the proposed Fresno Southeast Development Area (SEDA) Specific Plan Project (State Clearinghouse No. 2022020486). This document is prepared in conformance with CEQA (Public Resources Code [PRC] § 21000, *et seq.*) and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, § 15000, *et seq.*).

The purpose of this Recirculated Draft PEIR is to inform decision-makers, representatives of affected and responsible agencies, the public, and other interested parties of the potential environmental effects that may result from implementation of the proposed project. This Recirculated Draft PEIR describes potential impacts relating to a wide variety of environmental issues and methods by which these impacts can be mitigated or avoided.

Project Summary

Project Location

The City of Fresno (City) is located in the Fresno County, California, within the San Joaquin Valley. The City is located approximately 200 miles north of Los Angeles and 170 miles south of Sacramento. The City is located on the State Route (SR) 99 corridor and bounded by Madera County to the north, the City of Clovis to the northeast, and unincorporated land and communities to the east, south, and west. The City encompasses approximately 115.18 square miles and has a population of approximately 542,000 people.

The location of the nearly 9,000-acre Plan Area is in the southeast portion of the City, in Fresno County, California as shown in Exhibit 2-1. The Plan Area is bounded on the north by the Gould Canal, on the east by McCall and Highland Avenues, on the south by Jensen and North Avenues, and on the west by Locan, Temperance, and Minnewawa Avenues.

Project Description

The proposed project is a Specific Plan for the SEDA that would provide for increased density and accelerate housing production throughout the Plan Area. The proposed project would offer flexibility in meeting the evolving needs of households in the region through a multimodal transportation network and diverse housing types and affordability levels. It has the potential to accommodate approximately 45,000 homes and 37,000 jobs within the nearly 9,000-acre planning area by the year 2050. The proposed project is framed with three interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed project would link a series of complete communities and mixed-use centers with a multimodal transportation network. Additionally, the proposed project would include major transit lines, mixed-use centers, diverse residential districts, employment districts, open space, agriculture, and green infrastructure.

Project Objectives

The objectives of the proposed project are to:

Quantified Objectives:

- Accommodate between 40,000 and 45,000 dwelling units of varying types, sizes, densities, and affordability levels.
- Accommodate between 30,000 and 37,000 jobs.

Fiscal Responsibility:

- Provide self-financing for the development and ongoing maintenance of the SEDA that does not reduce City of Fresno resources dedicated to other areas of the City or burden Fresno residents outside of the SEDA.
- Holistically coordinate infrastructure to integrate efficiencies that piecemeal planning cannot.
- Invest in resource conserving techniques for stormwater systems, water supply, and trail and open space networks to save on infrastructure and mitigation costs.

Social Equity:

- Promote health by reducing harmful emissions from cars and industry.
- Foster healthy physical activity and community interaction by providing easy, safe walking and bicycle access to parks, schools, and retail centers.
- Sustain the diversity of Fresno's population by providing a wide variety of housing choices and business opportunities.
- Respect the major economic and cultural role of agriculture in the Central Valley by accommodating growth within the confines of a smaller urban footprint and directly integrating community-scale agriculture into the design of community centers, neighborhoods, and open spaces.

Environmental Sustainability:

- Emphasize the efficient use of energy, water, and other resources in SEDA design and policies. Strive to produce a self-mitigating plan that deeply reduces the environmental impacts of growth and can sustain and even serve to improve or repair natural systems.
- Reduce energy and water consumption through more efficient land use patterns, smarter building standards, and environmentally sensitive infrastructure to help Fresno meet standards for greenhouse gas emissions, and well as air pollution and water quality.

Housing Choice:

- Offer a variety of housing choices to a mix of incomes, age groups, and lifestyles.
- Ensure new housing units are affordable to households with varying levels of income through covenants and deed restrictions or other affordability mechanisms.

High Quality Transit Service:

- Provide convenient and frequent transit service to connect SEDA's town centers to jobs and housing inside the Plan Area and across the region.

Walkable Neighborhoods:

- Provide for nearly all homes to be located within walking distance of a Neighborhood Town Center with an elementary school, recreation areas, community gardens, and small shops.

Parks, Open Space, and Trails:

- Create a variety of natural open spaces and parks for recreation in all areas of the SEDA.
- Create trail systems and bicycle paths that make traveling without a car safe and convenient.
- Ensure that schools and major town centers can be reached safely with or without a car.

Mixed Use Town Centers:

- Mix shopping, housing, and jobs in vibrant Regional Town Centers and Community Town Centers that are easily accessible to most residents via a short walk, bike ride, drive, or transit trip.

Innovative Employment Areas:

- Attract opportunities in green technology and energy systems, ag-related industries, modular housing, and other emerging fields to provide jobs for Fresno residents.

Community Farming and Agriculture:

- Integrate small farms, community gardens, and farmers' markets into neighborhoods, schools, and town centers.
- Create a buffer that includes rural homes, organic farming, and open spaces to serve as a transition between the SEDA and commercial agriculture to the east.

Implementation:

- Develop the SEDA in an organized and phased manner based on housing needs, infrastructure availability, and minimization of impacts.
- Ensure amenities and infrastructure provision for each new phase prior to commencement of construction.

Significant Unavoidable Adverse Impacts

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

- **Impact AES-3 (Project-level Visual Character):** The proposed project would, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site

and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). Buildout of the SEDA Specific Plan would alter the existing visual character by increasing the intensity of development in many areas that are primarily agriculture. No feasible mitigation measures are available to mitigate the impact to a less than significant level.

- **Impact AES-4 (Project-level Light and Glare):** The proposed project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Intensified development in the Plan Area could increase the amount of light from streetlights, exterior lighting from buildings, and vehicle headlights. The increase in lighting within the Plan Area could result in light spillover onto adjacent areas and could substantially illuminate the sky during nighttime. This increase in illumination is considered a significant impact. Implementation of Mitigation Measures (MM) AES-4a through MM AES-4e would reduce potential glare impacts resulting from the proposed project by requiring shields, low-intensity fixtures, requirements for signs, and non-reflective materials. However, impacts would remain significant and unavoidable.
- **Cumulative Aesthetics, Lights, and Glare Impacts:** Implementation of the proposed project would increase intensify development of structures, which would create new sources of light and glare within the Plan Area and adjacent to the Plan Area. These new sources of glare could result from materials used on building façades, parking lots, signs, roadway surfaces, and motor vehicles. This increase in glare could result in cumulatively considerable significant glare impacts and illumination of the nighttime sky. Additionally, implementation of MM AES-4a through MM AES-4e would reduce potential glare impacts resulting from the proposed project. However, impacts would remain significant and unavoidable.
- **Impact AG-1 (Project-level Conversion of Farmland to Nonagricultural Uses):** There are approximately 2,475 acres of land designated as Prime Farmland, approximately 1,352 acres of Farmland of Statewide Importance, approximately 1,189 acres of land designated as Farmland of Local Importance, and approximately 1,725 acres of land designated as Unique Farmland scattered throughout the Plan Area. Through its open space framework and land use objectives and policies, the Specific Plan would allow flexibility in the location, form, and function of diverse agricultural types within communities and would establish a buffer between the urban area of the City of Fresno and the surrounding agricultural land. The proposed project would implement MM AG-1, which requires future developments within the Plan Area to evaluate and mitigate the potential loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland by utilizing the Land Evaluation and Site Assessment (LESA) Model and 1-1 conservation easements, or other recorded instruments to mitigate the loss of farmland. If the City adopts a Farmland Preservation Program pursuant to Fresno General Plan Policy RC-9-c, MM AG-1 states that project proponents may compensate for the loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland by complying with the adopted Farmland Preservation Program. However, while implementation of MM AG-1 would reduce the degree of potential impacts associated with future development under the Specific Plan, the conversion of Farmland to nonagricultural uses would still occur. Therefore, this impact would be significant and unavoidable even with implementation of available mitigation.

- **Impact AG-2 (Project-level Conflict with Existing Zoning or Williamson Act Contract):** According to the General Plan, the City and its Sphere of Influence (SOI) includes lands under Williamson Act Contract for prime and non-prime agricultural land. According to the Williamson Act property map, the majority of Williamson Act properties within the City and SOI are located within the Plan Area. Therefore, the continued implementation of the approved General Plan and the proposed Specific Plan could conflict with existing Williamson Act Contracts because non-agricultural uses are allowed on the land under a Williamson Act Contract. As a result, the continued implementation of the General Plan and proposed Specific Plan could result in a significant impact on existing Williamson Act Contract land. While the policies included in the Specific Plan would directly limit farmland conversion and thereby help to preserve agriculture in the Plan Area and implementation of MM AG-1 would reduce impacts related to the conversion of Farmland to nonagricultural use, buildout of the proposed project would still result in the conversion of Williamson Act land to nonagricultural uses. Therefore, this impact would be significant and unavoidable without any available mitigation to reduce it to less than significant.
- **Cumulative Agricultural Resources and Forestry Resources Impacts:** Although the proposed project would promote small farms, community gardens, and farmer's markets, future development in areas outside of the Plan Area, in combination of the loss of Prime Farmland within the Plan Area, would result in the conversion of farmland to nonagricultural uses, despite the implementation of MM AG-1. Therefore, the implementation of the proposed project would result in a significant and unavoidable impact on agricultural zoning and Williamson Act Contracts. The proposed project includes land use changes that would result in the conversion of farmland to nonagricultural uses, and no feasible mitigation measures are available. Therefore, this impact would be significant and unavoidable.
- **Impact AIR-1 (Project-level Consistency with Air Quality Management Plan):** The proposed project has the potential to exceed the San Joaquin Valley Air Pollution Control District (Valley Air District) significance thresholds during construction and operation. Implementation of the proposed project would result in the generation of substantial long-term criteria air pollutant emissions that would exceed the Valley Air District regional significance thresholds and would therefore not be considered consistent with the existing Air Quality Plans (AQPs). Mitigation measures AIR-1a through AIR-1d will serve to reduce emissions and exposures, however not to levels below the significance thresholds. While the various goals and policies of the proposed project would contribute to reducing long-term criteria air pollutant emissions to the extent feasible, no further feasible measures are available beyond the applicable Valley Air District rules and regulations and the proposed project's policies and design guidelines. Therefore, due to the magnitude and intensity of development accommodated by the proposed project, it would have a significant and unavoidable impact.
- **Impact AIR-2 (Project-level Cumulative Criteria Pollutant Emissions):** Compliance with existing regulatory programs, General Plan policies, and MM AIR-1a through MM AIR-1d will serve to reduce the impacts of the proposed project to the extent feasible. While adherence to Rule 9510 would contribute to reducing exhaust nitrogen oxide (NO_x) emissions, it would not be applicable to reducing volatile organic compound (VOC) emissions generated by operation of equipment and from off-gassing from asphalt and paints. Additionally, there is

potential for multiple projects to be constructed at one time in the Plan Area, resulting in the generation of cumulatively significant amounts of NO_x emissions. Regional emissions generated by the proposed project would exceed applicable thresholds for cumulative criteria pollutant emissions after compliance with all rules, regulations, and mitigation measures during operation. While compliance with the Valley Air District rules and the policies of the proposed Specific Plan may contribute to reducing operation-related regional air quality impacts of individual projects envisioned under the proposed Specific Plan to less than significant levels, the projected cumulative emissions associated with future development projects would be in exceedance of the Valley Air District thresholds. Therefore, implementation of the proposed project would result in a significant impact because it would significantly contribute to the nonattainment designations of the San Joaquin Valley Air Basin (SJVAB). This impact would be significant and unavoidable.

- **Impact AIR-3 (Project-level Sensitive Receptors Exposure to Pollutant Concentrations):** Compliance with existing regulatory programs, General Plan policies, and MM AIR-1a through MM AIR-1d will serve to reduce the impacts of the proposed project to the extent feasible. However, the proposed project would result in the future development of numerous projects, each contributing incrementally to air emissions affecting sensitive receptors. Thus, it is possible that the proposed project would result in cumulatively significant impacts to sensitive receptors, even if individual projects were each less than significant. This is particularly likely since none of the measures herein would prevent multiple development projects from being constructed concurrently within close proximity to sensitive receptors in such a manner as to cause substantial concentrations within the area. Furthermore, neither the amount of construction occurring nor the exact location within the Plan Area is foreseeable and, as such, it cannot be determined whether the resultant construction emissions could be adequately controlled or reduced to below regulatory thresholds. Without such information, it is not possible to conclude that air pollutant emissions resulting from construction activities would be adequately reduced to the point that sensitive receptors are not exposed to substantial concentrations of air pollutants, and thus a significant and unavoidable impact may result.
- **Cumulative Air Quality Impacts:** While implementation of MM AIR-1a through MM AIR-1d would serve to reduce criteria air pollutant and toxic air contaminants (TAC) emissions generated by the proposed project, there is currently not enough information to quantify emissions of specific project development that may occur under the proposed project. Without quantification to guarantee a less than significant finding, future development projects may still exceed the Valley Air District regional significance thresholds. Additionally, due to the size of the proposed project, there is not sufficient feasible mitigation available to reduce the potential criteria pollutant emissions associated with the proposed project to levels that would not exceed the Valley Air District thresholds of significance. Therefore, cumulative impacts to air quality would remain significant and unavoidable.
- **Impact NOI-1 (Project-level Construction Noise):** Short-term construction noise impacts associated with the project are an increase in traffic flow on local streets associated with the transport of workers, equipment, and materials to and from the project site and noise generated during site-preparation, grading, and construction activities. With implementation of MM NOI-1a and MM NOI-1b, construction noise impacts due to construction activities

would be reduced to the extent feasible. However, given that details of individual development projects in the vicinity of the Plan Area are currently unknown, it is not possible to quantify the construction noise impacts at specific off-site or on-site sensitive receptors. Because these construction activities may occur near noise-sensitive receptors and because noise disturbances may occur for prolonged periods of time, construction noise impacts would remain significant and unavoidable.

- **Cumulative Construction Noise:** Given that details of individual development projects adjacent to the Plan Area are currently unknown, it is not possible to quantify future cumulative construction noise impacts that could occur if multiple developments were to construct simultaneously, which could constitute a cumulative noise impact. Because construction activities associated with implementation of the Specific Plan could then also occur simultaneously and because noise disturbances could occur for prolonged periods of time, there is the possibility for a cumulative construction noise impacts that would remain significant and unavoidable.

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 and the public, and it must also address 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 February 22, 2022. The NOP describing the original concept for the proposed project and issues to be addressed in the Recirculated Draft PEIR was distributed to the State Clearinghouse, responsible agencies, and other interested parties for a 30-day public review period extending from February 22, 2022 through March 25, 2022. The NOP identified the potential for significant impacts on the environment related to the following topical areas:

- Aesthetics, Light, and Glare
- Agricultural Resources and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance

Disagreement Among Experts

This Recirculated Draft PEIR 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 Fresno is not aware of any disputed conclusions at the time of this writing. Both the CEQA Guidelines and case law clearly 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.

Potentially Controversial Issues

Below is a list of potentially controversial issues that may be raised during the public review and hearing process of this Recirculated Draft PEIR:

- Section 3.2, Agricultural Resources and Forestry Resources
- Section 3.5, Cultural Resources and Tribal Cultural Resources
- Section 3.7, Geology, Soils, and Seismicity
- Section 3.9, Hazards and Hazardous Materials
- Section 3.10, Hydrology and Water Quality
- Section 3.15, Public Services
- Section 3.17, Transportation and Traffic
- Section 3.18, Utilities and Service Systems

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

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 and need not resolve a dispute among experts. In their proceedings, decision-makers must consider comments received concerning the adequacy of the Recirculated Draft PEIR 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 Recirculated Draft PEIR and can certify the Final EIR without needing to resolve disagreements among experts.

Reasons for Recirculation

The CEQA Guidelines indicate that a Lead Agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the Draft EIR for public review before certification. The use of “information” in this guideline can include changes in the project or environmental setting as well as additional data or other information. However, new information is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental impact of the proposed project or a feasible way to mitigate or avoid such an effect that the project’s proponents have declined to implement. If the revisions to the EIR are limited to a few chapters or portions of the EIR, the Lead Agency need only recirculate the chapters or portions that have been modified (CEQA Guidelines Section 15088.5).

A Draft PEIR, dated July 14, 2023, (previously circulated Draft PEIR) was prepared for the proposed project, and was circulated for public review between July 14, 2023, and August 28, 2023. During the public review period for the previously circulated Draft PEIR, the City received 38 written comment letters, 60 survey responses, five written comment cards, and 34 verbal comments. Subsequently, a Partial Recirculated Draft PEIR, dated October 3, 2023, which included revisions to the Geology, Soils, and Seismicity and Transportation and Traffic sections of the previously circulated Draft PEIR, was prepared for the proposed project and was circulated for public review between October 3, 2023, and November 17, 2023. During the public review period for the Partial Recirculated Draft PEIR, the City received seven written comment letters. However, a Final PEIR was not finalized or certified for the proposed project.

Prior to the finalization of the previously circulated Draft PEIR and the Partial Recirculated Draft PEIR, the Lead Agency decided to revise the PEIR for the proposed project to remove reliance on the City of Fresno 2021 General Plan PEIR, including both its findings and its mitigation measures that were previously referenced in both documents, as well as the 2021 GHG Reduction Plan. These revisions are considered substantial changes to the environmental setting, and thus constitute “significant new information,” requiring recirculation of the entire Draft PEIR for the proposed project.

The City prepared and circulated this Recirculated Draft PEIR to the SCH, trustee and responsible agencies, the public, and all parties and individuals that submitted comments on the previously circulated Draft PEIR and Partial Recirculated Draft PEIR during the public comment period.

This Recirculated Draft PEIR contains a description of the proposed project, a description of the environmental setting, an identification of the proposed project’s direct and indirect impacts on the environment, the Specific Plan objectives and policies that reduce potential impacts, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. Comments received in response to the NOP, previously circulated Draft PEIR, and Partial Recirculated Draft PEIR were considered in preparing the Recirculated Draft PEIR. Copies of these letters are provided in Appendix A of this Revised Draft EIR.

Public Review of the Recirculated Draft Program EIR

Upon completion of the Recirculated Draft PEIR, the City of Fresno filed a Notice of Completion (NOC) with the California Governor’s Office of Planning and Research (OPR) to begin the public review period (PRC § 21161). Concurrent with the NOC, this Recirculated Draft PEIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Recirculated Draft PEIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Recirculated Draft PEIR, including the technical appendices, is available for review at these locations during business hours:

City of Fresno
Planning and Development Department
c/o Sophia Pagoulatos, Planning Manager
2600 Fresno Street
Third Floor, Room 3043
Fresno, California 93721

Fresno County Public Library, Central Branch
2420 Mariposa Street
Fresno, California 93721

Fresno County Public Library, Sunnyside Branch
5566 East Kings Canyon Road
Fresno, California 93727

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

City of Fresno
Planning and Development Department
Sophia Pagoulatos, Planning Manager
2600 Fresno Street, Room 3065
Fresno, California 93721
longrangeplanning@fresno.gov

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 Fresno 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.

Many of the environmental issues and questions raised in comments on the previously circulated Draft PEIR and Partial Recirculated Draft PEIR are addressed herein, and accordingly, the entire Draft PEIR has been republished with revisions and additions.

Response to Comments on the Recirculated Draft PEIR/Final PEIR

Following the public review period on the Recirculated Draft PEIR, a Final PEIR will be prepared. The Final PEIR will respond to written comments received during the public review period and to oral comments made at public hearings. The Final EIR may also include corrections, clarification, and additional explanatory information that is being added to the Recirculated Draft EIR.

CEQA Guideline 15088.5(f)(1) provides that:

When an EIR is substantially revised and the entire document is recirculated, the lead agency may **require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period.** The lead agency shall advise reviewers, either in the text of the revised EIR or by an attachment to the revised EIR, that although part of the administrative record, **the previous comments do not require a written response in the final EIR, and that new comments must be submitted for the revised EIR.**

The lead agency need only respond to those comments submitted in response to the recirculated revised EIR. (Emphasis added.)

The previously circulated Draft PEIR and Partial Recirculated Draft PEIR were circulated for public review and comment period between July 14, 2023, and August 28, 2023, and between October 3, 2023, and November 17, 2023, respectively. In accordance with CEQA Guidelines Section 15088.5, the City, acting as the Lead Agency for the proposed project, formally advises reviewers of the Recirculated Draft PEIR that they must submit new comments on this Recirculated Draft PEIR. The Final PEIR, which will be prepared after the public review period for the Recirculated Draft PEIR, will only include responses to environmental comments received on the Recirculated Draft PEIR.

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 Recirculated Draft PEIR. Table ES-1 is included in the Recirculated Draft PEIR as required by CEQA Guidelines Section 15123(b)(1).

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Table ES-1: Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 3.1—Aesthetics, Light, and Glare		
Impact AES-1: The proposed project would not have a substantial adverse effect on a scenic vista.	None required.	N/A
Impact AES-2: The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a State Scenic Highway.	None required.	N/A
Impact AES-3: The proposed project would in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point).	No feasible mitigation measures are available.	Significant and unavoidable impact.
Impact AES-4: The proposed project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	MM AES-4a: Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residences.	Significant and unavoidable impact.
	MM AES-4b: Lighting systems for public facilities such as active play areas shall provide adequate illumination for the activity; however, low-intensity light fixtures and shields shall be used to minimize spillover light onto adjacent properties.	
	MM AES-4c: Lighting systems for nonresidential uses, not including public facilities, shall provide shields on the light fixtures and orient the lighting system away from adjacent properties. Low-intensity light fixtures shall also be used if excessive spillover light onto adjacent properties will occur.	
	MM AES-4d: Lighting systems for freestanding signs shall not exceed 100 footlambert (ft-L) when adjacent to streets which have an average light intensity of less than 2.0 horizontal foot-candles and shall not exceed 500 ft-L when adjacent to streets that have an average light intensity of 2.0 horizontal foot-candles or greater.	
	MM AES-4e: Materials used on building façades shall be non-reflective.	

Impacts	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impact: The proposed project would result in significant and unavoidable cumulative impacts to aesthetics, light, and glare.	Implement MM AES-4a through MM AES-4e.	Significant and unavoidable impact.
Section 3.2—Agricultural Resources and Forestry Resources		
Impact AG-1: The proposed project would 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 nonagricultural use.	<p>MM AG-1: Prior to initiation of grading activities, project proponents shall compensate for the loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland within the Fresno Southeast Development Area Specific Plan Area (Plan Area) by preserving an equivalent type and quantity of land at a 1:1 ratio through recordation of a conservation easement, or other recorded instrument, such as a covenant or deed that restricts the preserved land in perpetuity to agricultural uses.</p> <p>The acreage and type of land use to compensate for the loss of farmland shall be determined using the Land Evaluation and Site Assessment (LESA) Model. The LESA Model evaluates measures of soil resource quality, a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands.</p> <p>In the alternative, if the City adopts a Farmland Preservation Program pursuant to Fresno General Plan Policy RC-9-c, project proponents may compensate for the loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland by complying with the adopted Farmland Preservation Program.</p>	Significant and unavoidable impact.
Impact AG-2: The proposed project would conflict with existing zoning for agricultural use, or a Williamson Act Contract.	Implement MM AG-1.	Significant and unavoidable impact.
Impact AG-3: The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).	None required.	No impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact AG-4: The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use.	None required.	No impact.
Impact AG-5: The proposed project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use.	Implement MM AG-1 .	Significant and unavoidable impact.
Cumulative Impact: The proposed project would result in significant and unavoidable cumulative impacts to agricultural and forestry resources.	Implement MM AG-1 .	Significant and unavoidable impact.
Section 3.3—Air Quality		
Impact AIR-1: The proposed project would conflict with or obstruct implementation of the applicable air quality plan.	<p>MM AIR-1a: Prior to future discretionary project approval in the Fresno Southeast Development Area Specific Plan Area (Plan Area), development project applicants shall prepare and submit to the Director of the Planning and Development Department, or designee, documentation that demonstrates the use of “Super-Compliant” architectural coatings during construction of the proposed project. “Super-Compliant” architectural coatings, also known as low-VOC, are paints which do not exceed 10 grams of reactive organic gas (ROG) per liter of paint.</p> <p>All architectural coatings shall be applied either by (1) using a high-volume, low-pressure spray method operated at an air pressure between 0.1 and 10 pounds per square inch gauge to achieve a 65 percent application efficiency; or (2) manual application using a paintbrush, hand-roller, trowel, spatula, dauber, rag, or sponge, to achieve a 100 percent application efficiency. The construction contractor shall also use precoated/natural colored building materials, where feasible.</p> <p>MM AIR-1b: Prior to future discretionary project approval in the Fresno Southeast Development Area Specific Plan Area (Plan Area), development project applicants shall prepare and submit to the Director of the Planning and Development Department, or designee, a technical assessment evaluating potential project construction phase-related air</p>	Significant and unavoidable impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>quality impacts. The evaluation shall be prepared in conformance with San Joaquin Valley Air Pollution Control District (Valley Air District) methodology for assessing construction impacts. If construction-related air pollutants are determined to have the potential to exceed the Valley Air District adopted threshold of significance, project applicants for new development projects shall be required to incorporate mitigation measures into construction plans to reduce air pollutant emissions during construction activities. The identified measures shall be included as part of the Project Conditions of Approval. Possible mitigation measures to reduce construction emissions include but are not limited to:</p> <ul style="list-style-type: none"> • Use of offroad construction equipment that meets the United States Environmental Protection Agency (EPA) Tier 4 Final offroad engine emissions standards. • Install temporary construction power supply meters on-site and use these to provide power to electric power tools whenever feasible. If temporary electric power is available on-site, forbid the use of portable gasoline- or diesel-fueled electric generators. • Use of diesel oxidation catalysts and/or catalyzed diesel particulate traps on diesel equipment, as feasible. • Maintain equipment according to manufacturers' specifications. • Restrict idling of equipment and trucks to a maximum of 5 minutes (per California Air Resources Board [ARB] regulation). • Phase grading operations to reduce disturbed areas and times of exposure. • Avoid excavation and grading during wet weather. • Limit on-site construction routes and stabilize construction entrance(s). • Remove existing vegetation only when absolutely necessary. • Sweep up spilled dry material (e.g., cement, mortar, or dirt trackout) immediately. Never attempt to wash them away with water. Use only minimal water for dust control. • Store stockpiled material and waste under a temporary roof or secured plastic sheeting or tarp. <p>MM AIR-1c: Prior to future discretionary project approval in the Fresno Southeast Development Area Specific Plan Area (Plan Area), development</p>	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>project applicants shall prepare and submit to the Director of the Planning and Development Department, or designee, a technical assessment evaluating potential project operation-related air quality impacts. The evaluation shall be prepared in conformance with San Joaquin Valley Air Pollution Control District (Valley Air District) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the Valley Air District adopted thresholds of significance, the project applicants for new development projects shall be required to incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the Project Conditions of Approval. Possible mitigation measures to reduce long-term emissions include but are not limited to:</p> <ul style="list-style-type: none"> • For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections including the use of electric-powered forklifts and/or other interior vehicles at loading docks for plugging in the anticipated number of refrigerated trailers to reduce idling time and emissions. • Applicants for manufacturing and light industrial uses shall consider energy storage (i.e., battery) and combined heat and power (CHP, also known as cogeneration) in appropriate applications to optimize renewable energy generation systems and avoid peak energy use. • Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with ARB Rule 2845 (13 California Code of Regulations [CCR] Chapter 10, § 2485). • Electric vehicle (EV) charging shall be provided as specified in Section A4.106.8.2 (Residential Voluntary Measures) of the California Green Building Standards Code (CALGreen) Code. • Bicycle parking shall be provided as specified in Section A4.106.9 (Residential Voluntary Measures) of the CALGreen Code. • Projects shall be required to implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduction of indoor water use by 25 percent 	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> • Maximize use of solar energy including solar panels; installing the maximum possible number of solar energy arrays on building roofs throughout the City to generate solar energy. • Maximize the planting of trees in landscaping and parking lots. • Use light-colored paving and roofing materials. • Require use of electric or alternatively fueled street-sweepers with HEPA filters. • Require use of electric lawn mowers and leaf blowers. • Utilize only Energy Star heating, cooling, and lighting devices, and appliances. • Use of water-based or low volatile organic compound (VOC) cleaning products. • For buildings with more than 10 tenant-occupants, changing/shower facilities shall be provided as specified in Section A5.106.4.3 (Nonresidential Voluntary Measures) of the California Green Building Standards Code (CALGreen) Code. • Long-term and short-term bicycle parking shall be provided as specified in Section A5.106.4 (Nonresidential Mandatory Measure) of the CALGreen Code. • Preferential parking for low-emitting, fuel-efficient, and carpool/van vehicles shall be provided as specified in Section A5.106.5.1 (Nonresidential Voluntary Measures) of the CALGreen Code. <p>Facilities shall be installed to support future EV charging at each nonresidential building with 30 or more parking spaces. Installation shall be consistent with Section A5.106.5.3 (Nonresidential Voluntary Measures) of the CALGreen Code.</p> <p>MM AIR-1d: Prior to future discretionary project approval in the Fresno Southeast Development Area Specific Plan Area (Plan Area), development project applicants proposing a project with the potential to introduce sources of diesel particulate matter (DPM) and/or toxic air contaminants (TACs) (such as diesel backup generators or significant truck trips) within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall prepare and</p>	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>submit to the Director of the Planning and Development Department, or a designee, a Health Risk Assessment (HRA). The HRA shall be prepared in accordance with policies and procedures of the most current California Office of Environmental Health Hazard Assessment (OEHHA) and the San Joaquin Valley Air Pollution Control District (Valley Air District). If the HRA shows that the incremental health risks exceed their respective thresholds, as established by the Valley Air District at the time a project is considered, the project applicant shall be required to identify and demonstrate that Best Available Control Technologies for toxics (T-BACTs), including appropriate enforcement mechanisms to reduce risks to an acceptable level. T-BACTs may include, but are not limited to:</p> <ul style="list-style-type: none"> • Restricting idling on-site or electrifying warehousing docks to reduce DPM); • Requiring use of newer tier equipment and/or vehicles; • Providing charging infrastructure for: electric forklifts, electric yard trucks, local drayage trucks, last mile delivery trucks, electric and fuel-cell heavy-duty trucks; and/or • Installing solar panels, zero-emission backup electricity generators, and energy storage to minimize emissions associated with electricity generation at the project site. • T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan. 	
Impact AIR-2: The proposed project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard.	Implement MM AIR-1a through MM AIR-1d .	Significant and unavoidable impact.
Impact AIR-3: The proposed project would expose sensitive receptors to substantial pollutant concentrations.	Implement MM AIR-1d .	Significant and unavoidable impact.
Impact AIR-4: The proposed project could result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	MM AIR-4: Prior to future discretionary project approval in the Fresno Southeast Development Area Specific Plan Area (Plan Area), development project applicants proposing a project with the potential to generate significant odor impacts as determined through review of San Joaquin	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	Valley Air Pollution Control District (Valley Air District) odor complaint history for similar facilities and consultation with the Valley Air District, shall prepare an odor impact assessment and shall implement odor control measures recommended by the Valley Air District or the City as needed to reduce the impact to a level deemed acceptable by the Valley Air District.	
Cumulative Impact: The proposed project would have significant and unavoidable cumulative impacts to air quality.	Implement MM AIR-1a through MM AIR-1d and MM AIR-4.	Significant and unavoidable impact.
Section 3.4—Biological Resources		
Impact BIO-1: The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.	MM BIO-1a: Construction of a proposed project shall avoid, where possible, vegetation communities that provide suitable habitat for a special-status species known to occur within the Southeast Development Area (SEDA) Plan Area. If construction within potentially suitable habitat must occur, the presence/absence of any special-status plant or wildlife species must be determined prior to construction, to determine whether the habitat supports any special-status species. If a special-status species are determined to occupy any portion of a project site, avoidance and minimization measures shall be incorporated into the construction phase of a project to avoid direct or incidental take of a listed species to the greatest extent feasible. Specific mitigation measures for direct or incidental impacts to special-status species shall be determined on a case-by-case basis through agency consultation during the review process for discretionary projects, and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.	Less than significant impact with mitigation incorporated.
	MM BIO-1b: Direct or incidental take of any State or federally listed species shall be avoided to the greatest extent feasible. If construction of a proposed project will result in the direct or incidental take of a listed species, consultation with the resources agencies and/or additional permitting may be required. Agency consultation through the California Department of Fish and Wildlife (CDFW) 2081 and United States Fish and Wildlife Service (USFWS) Section 7 or Section 10 permitting processes shall take place prior to any action that may result in the direct or incidental take of a listed species. Specific mitigation measures for direct or incidental impacts to special-status species shall be determined on a case-by-case	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>basis through agency consultation during the review process for discretionary projects and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.</p> <p>MM BIO-1c: Development within the Southeast Development Area (SEDA) Plan Area shall avoid, where possible, special-status natural communities and vegetation communities that provide suitable habitat for special-status species. If a proposed project will result in the loss of a special-status natural community or suitable habitat for special-status species, compensatory habitat-based mitigation is required under CEQA and California Endangered Species Act (CESA). Mitigation shall consist of preserving on-site habitat, restoring similar habitat or purchasing off-site credits from an approved mitigation bank. Compensatory mitigation shall be determined through consultation with the City and/or resource agencies. An appropriate mitigation strategy and ratio shall be agreed upon by the Developer and Lead Agency to reduce project impacts to special-status natural communities to a less than significant level. Agreed-upon mitigation ratios shall depend on the quality of the habitat and presence/absence of a special-status species. Specific mitigation measures for direct or incidental impacts to special-status natural communities and vegetation communities shall be determined on a case-by-case basis through agency consultation during the review process for discretionary projects and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.</p> <p>MM BIO-1d: Proposed projects within the Southeast Development Area (SEDA) Plan Area should avoid, if possible, construction within the general nesting season of February through August for avian species protected under Fish and Game Code 3500 and the Migratory Bird Treaty Act (MBTA), if it is determined that suitable nesting habitat occurs on a project site. If construction cannot avoid the nesting season, a qualified Biologist shall conduct a pre-construction clearance survey to determine whether any nesting birds or nesting activity is observed on or within 500 feet of a project site. If an active nest is observed during the survey, a Biological Monitor shall be on-site to ensure that no proposed project activities would impact the active nest. A suitable buffer shall be established around the</p>	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>active nest until the nestlings have fledged and the nest is no longer active. Project activities may continue in the vicinity of the nest only at the discretion of the Biological Monitor. Prior to commencement of grading activities and issuance of any building permits, the Director of the City of Fresno Planning and Development Department, or designee, shall verify that all proposed project grading and construction plans include specific documentation regarding the requirements of the MBTA and California Fish and Game Code Section 3503, that pre-construction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field. Specific mitigation measures for direct or incidental impacts to avian species protected under Fish and Game Code 3500 and the MBTA shall be determined on a case-by-case basis through agency consultation during the review process for discretionary projects and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.</p>	
<p>Impact BIO-2: The proposed project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.</p>	<p>MM BIO-2a: A pre-construction clearance survey, following current California Department of Fish and Wildlife (CDFW) protocols, shall be conducted by a qualified Biologist to determine whether a proposed project will result in the removal or impact to any riparian habitat and/or a special-status natural community with potential to occur in the Southeast Development Area (SEDA) Plan Area, compensatory habitat-based mitigation shall be required to reduce project impacts. Compensatory mitigation must involve the preservation or restoration or the purchase of off-site mitigation credits for impacts to riparian habitat and/or a special-status natural community. Mitigation must be conducted in-kind or within an approved mitigation bank in the region. The specific mitigation ratio for habitat-based mitigation shall be determined through consultation with the appropriate agency (i.e., CDFW or the United States Fish and Wildlife Service [USFWS]) on a case-by-case basis. The project applicant/developer for a proposed project shall develop and implement appropriate mitigation regarding impacts on their respective jurisdictions.</p>	<p>Less than significant impact with mitigation incorporated.</p>
	<p>MM BIO-2b: A pre-construction clearance survey, following current California Department of Fish and Wildlife (CDFW) protocols, shall be conducted by a qualified Biologist to determine whether a proposed project</p>	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>will result in significant impacts to streambeds or waterways protected under Section 1600 of Fish and Wildlife Code and Section 404 of the Clean Water Act (CWA). The project applicant/developer for a proposed project shall consult with partner agencies such as CDFW and/or the United States Army Corps of Engineers (USACE) to develop and implement appropriate mitigation regarding impacts on their respective jurisdictions, determination of mitigation strategy, and regulatory permitting to reduce impacts, as required for projects that remove riparian habitat and/or alter a streambed or waterway. The project applicant/developer shall implement mitigation as directed by the agency with jurisdiction over the particular impact identified.</p> <p>MM BIO-2c: Prior to project approval, a pre-construction clearance survey, following current California Department of Fish and Wildlife (CDFW) protocols, shall be conducted by a qualified Biologist to determine whether a proposed project will result in project-related impacts to riparian habitat or a special-status natural community or if it may result in direct or incidental impacts to special-status species associated with riparian or wetland habitats. The project applicant/developer for a proposed project shall be obligated to address project-specific impacts to special-status species associated with riparian habitat through agency consultation, development of a mitigation strategy, and/or issuing incidental take permits for the specific special-status species, as determined by the CDFW and/or the United States Fish and Wildlife Service (USFWS).</p>	
<p>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.</p>	<p>MM BIO-3a: If a proposed project will result in the significant alteration or fill of a federally protected wetland, a formal wetland delineation conducted according to the United States Army Corps of Engineers (USACE) accepted methodology is required for each project to determine the extent of wetlands on a project site. The delineation shall be used to determine whether federal permitting and mitigation strategy are required to reduce project impacts. Acquisition of permits from USACE for the fill of wetlands and USACE approval of a wetland mitigation plan would ensure a “no net loss” of wetland habitat within the Planning Area. Appropriate wetland mitigation/creation shall be implemented in a ratio according to the size of the impacted wetland.</p>	<p>Less than significant impact with mitigation incorporated.</p>

Impacts	Mitigation Measures	Level of Significance After Mitigation
	MM BIO-3b: In addition to regulatory agency permitting, Best Management Practices (BMPs) identified from a list provided by the United States Army Corps of Engineers (USACE) shall be incorporated into the design and construction phase of the project to ensure that no pollutants or siltation drain into a federally protected wetland. Project design features such as fencing, appropriate drainage and incorporating detention basins shall assist in ensuring project-related impacts to wetland habitat are minimized to the greatest extent feasible.	
Impact BIO-4: The proposed project would not 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.	None required.	N/A
Impact BIO-5: The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	None required.	N/A
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.	None required.	N/A
Cumulative Impact: The proposed project would have a less than cumulative impact on biological resources.	None required.	N/A
Section 3.5—Cultural Resources and Tribal Cultural Resources		
Impact CUL-1: The proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.	MM CUL-1: Individual development projects which proposed to alter a building or structure greater than 45 years of age at the time an application is submitted would be required to undergo project-specific environmental review, in compliance with CEQA Guidelines Section 15064.5, in order for the City to determine whether the building or structure may be a historic resource and take appropriate action such as requiring additional site-	Less than significant impact with mitigation incorporated.

specific or project-specific measures to reduce any potential impacts. These measures are, but not limited to the following:

- Prior to project development that may affect historical resources (i.e., structures 45 years or older), a historical resources assessment shall be performed by an architectural historian or historian who meets the Secretary of the Interior’s Professionally Qualified Standards in architectural history or history. This shall include a records search to determine whether any resources that may be potentially affected by the project have been previously recorded, evaluated, and/ or designated in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or a local register. Following the records search, the qualified architectural historian shall conduct a survey in accordance with the California Office of Historic Preservation (OHP) guidelines to identify any previously unrecorded potential historical resources that may be potentially affected by the proposed project. The criteria for determining a historically significant building or structure shall meet one or more of the following criteria:
 - Is associated with events that have made a significant contribution to the broad patterns of local, regional, or national history; or
 - Is associated with the lives of persons significant in local, regional, or national history; or
 - Embodies the distinctive characteristics of a significant architectural style, property type, period, or method of construction; represent the work of an architect, designer, engineer, or builder who is locally, regionally, nationally significant, or it is a significant visual feature of the City; possess high artistic values, represent a significant and distinguishable entity whose components may lack individual distinction; or
 - That have yielded, or may be likely to yield, information important in prehistory or history.
- Properties identified as historically significant resources, shall contain proper documentation meeting the Historic American Building Survey (HABS) Guidelines that shall be prepared and implemented, as approved by the qualified historian meeting the Secretary of the Interior’s Professional Qualifications Standards. Such documentation shall include drawings, photographs, and written data for each

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>building/structure/element, and provide a detailed mitigation plan, including a monitoring program, recovery, rehabilitation, redesign, relocation, and/or in situ preservation plan.</p> <ul style="list-style-type: none"> To ensure that projects requiring the relocation, rehabilitation, or alternation of a historical resource do not impact the resource's significance, the Secretary of Interior's Standards for the Treatments of Historic Properties shall be used to the maximum extent possible. The application of the standards shall be overseen by a qualified architectural historian or historic architect meeting the Professional Qualified Standards. Prior to any construction activities that may affect the historical resource, a report identifying and specifying the treatment of character-defining features and construction activities shall be provided to the City of Fresno for review and approval. <p>If a proposed project would result in the demolition or significant alteration of historical resource, such demolition cannot be mitigated to a less than significant level. However, recordation of the resource prior to construction activities will assist in reducing adverse impacts to the resource to the greatest extent possible. Recordation shall take the form of Historic American Buildings Survey, Historic American Engineering Record, or Historic American Landscape Survey documentation, and shall be performed by an architectural historian or historian who meets the Professional Qualified Standards. Documentation shall include an architectural and historical narrative; medium- or large-format black and white photographs, negatives, and prints; and supplementary information such as building plans and elevations, and/or historical photographs. Documentation shall be reproduced on archival paper and placed in appropriate local, State, or federal institutions. The specific scope and details of documentation are to be developed in coordination with the City of Fresno.</p>	
<p>Impact CUL-2: The proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.</p>	<p>MM CUL-2: To determine the archaeological sensitivity for individual development projects within the City, an archaeological resources assessment shall be performed under the supervision of an Archaeologist that meets the Secretary of the Interior's Professional Qualified Standards for their role. The assessment shall include a California Historical Resources</p>	<p>Less than significant impact with mitigation incorporated.</p>

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>Information System (CHRIS) records search at the Southern San Joaquin Valley Information Center (SSJVIC) and a search of the Sacred Lands File (SLF) maintained by the Native American Heritage Commission (NAHC). The records searches shall determine if the proposed project has been previously surveyed for archaeological resources, identify and characterize the results of previous cultural resource surveys, and disclose any cultural resources that have been recorded and/or evaluated. A Phase I pedestrian survey shall be undertaken in areas that are developed and undeveloped to locate any surface cultural materials.</p> <ul style="list-style-type: none"> • If potentially significant archaeological resources are identified through an archaeological resources assessment, and impacts to these resources cannot be avoided, a Phase II Testing and Evaluation investigation shall be performed by an Archaeologist who meets the Secretary of the Interior's Standards prior to any construction-related ground-disturbing activities to determine significance. If resources determined significant or unique through Phase II testing, and site avoidance is not possible, appropriate site-specific mitigation measures shall be established and undertaken. These might include a Phase III data recovery program that would be implemented by a qualified Archaeologist and shall be performed in accordance with the Office of Historic Preservation's (OHP) Archaeological Resource Management Reports (ARMR). The Archaeologist must prepare an archaeological data recovery plan to be reviewed and approved by the Lead Agency prior to the excavation of resources. • If the archaeological assessment did not identify potentially significant archaeological resources within the proposed project area but indicated the area to be highly sensitive for archaeological resources, this shall be followed by monitoring of all ground-disturbing construction and pre-construction activities in areas with previously undisturbed soil by a qualified Archaeologist. The Archaeologist shall inform all construction personnel prior to construction activities of the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, 	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>construction activities within 100 feet of the discovery shall be halted while the resources are evaluated for significance by an Archaeologist who meets the Secretary of the Interior’s Standards. If the discovery proves to be significant, the qualified Archaeologist shall make recommendations to the Lead Agency (City of Fresno) on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines.</p> <ul style="list-style-type: none"> • If the archaeological assessment did not identify potentially significant archaeological resources but indicates the area to be of medium sensitivity for archaeological resources, an Archaeologist who meets the Professional Qualified Standards shall be retained on an on-call basis. The Archaeologist shall inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project’s initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities within 100 feet of the discovery shall be halted while the on-call Archaeologist is contacted. If the discovery proves to be significant, the qualified Archaeologist shall make recommendations to the Lead Agency (City of Fresno) on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. <p>Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project site should be recorded on appropriate California Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA Guidelines. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading</p>	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	shall occur in the area of the discovery until the Lead Agency (City of Fresno) approves the measures to protect these resources. The excavation, study, curation, and/or repatriation of archaeological artifacts recovered as a result of mitigation shall be undertaken in close consultation with the Lead Agency (City of Fresno) and representatives from consulting Native American Tribes, as appropriate. All Reports and DPR forms shall be submitted to the Lead Agency (City of Fresno), the SSJVIC, and the OHP, as required.	
Impact CUL-3: The proposed project could disturb human remains, including those interred outside of formal cemeteries.	<p>MM CUL-3: 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; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. If during the course of any future development project there is accidental discovery or recognition of any human remains, the following steps shall be taken.</p> <ol style="list-style-type: none"> 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 appropriate treatment and disposition of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources 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: <ul style="list-style-type: none"> • The NAHC is unable to identify a 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. 	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> 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. <p>Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American remains:</p> <p>When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project site, 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 applicant may develop a plan 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.</p>	
Impact CUL-4: The proposed project could 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 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).	Implement MM CUL-1, MM CUL-2, and MM CUL-3.	Less than significant impact with mitigation incorporated.
Impact CUL-5: The proposed project could 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 a resource determined by the lead agency, in its discretion and supported by substantial evidence, to	Implement MM CUL-1, MM CUL-2, and MM CUL-3.	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.		
Cumulative Impact: The proposed project would have a less than significant cumulative impact on cultural and tribal cultural resources with mitigation incorporated.	Implement MM CUL-1, MM CUL-2, and MM CUL-3.	Less than significant impact with mitigation incorporated.
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.	None required.	N/A
Impact ENER-2: The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	None required.	N/A
Cumulative Impact: The proposed project would have a less than significant cumulative impact on energy.	None required.	N/A
Section 3.7—Geology, Soils, and Seismicity		
Impact GEO-1: The proposed project would not 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.	None required.	N/A
Impact GEO-2: The proposed project would not result in substantial soil erosion or the loss of topsoil.	None required.	N/A

Impacts	Mitigation Measures	Level of Significance After Mitigation
Impact GEO-3: The proposed project would not 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.	None required.	N/A
Impact GEO-4: The proposed project would not 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.	None required.	N/A
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.	None required.	N/A
Impact GEO-6: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	<p>MM GEO-6a: Subsequent to a preliminary City review of the project grading plans, if there is evidence that a project will include excavation or construction activities within previously undisturbed soils, a field survey and literature search for unique paleontological/geological resources shall be conducted. The following procedures shall be followed:</p> <ul style="list-style-type: none"> • If unique paleontological/geological resources are not found during either the field survey or literature search, excavation and/or construction activities can commence. In the event that unique paleontological/geological resources are discovered during excavation and/or construction activities, construction shall stop in the immediate vicinity of the find and a qualified Paleontologist shall be consulted to determine whether the resource requires further study. The qualified Paleontologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to, excavation of the finds and evaluation of the finds. If the resources are determined to be significant, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading 	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any paleontological/geological resources recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.</p> <ul style="list-style-type: none"> ● If unique paleontological/geological resources are found during the field survey or literature review, the resources shall be inventoried and evaluated for significance. If the resources are found to be significant, mitigation measures shall be identified by the qualified Paleontologist. Similar to above, appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. In addition, appropriate mitigation for excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include a paleontological monitor. The monitoring period shall be determined by the qualified Paleontologist. If additional paleontological/geological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed. <p>MM GEO-6b: Applicants, owners and/or sponsors of all future development or construction projects shall be required to perform or provide paleontological monitoring during ground-disturbing activities. Should significant paleontological resources (e.g., bones, teeth, well-preserved plant elements) be unearthed by the future project construction crew, the project activities shall be diverted at least 15 feet from the discovered paleontological resources until a professional Paleontologist has assessed such discovered resources and, if deemed significant, such resources shall be salvaged in a timely manner. The applicant/owner/sponsor of said project shall be responsible for diverting project work and providing the assessment including retaining a professional Paleontologist for such purpose. Collected fossils shall be deposited by the applicant/owner/sponsor in an appropriate repository (e.g., University of California Museum of Paleontology (UCMP), California Academy of Sciences) where the collection shall be properly curated and made available for future research.</p>	

Impacts	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impact: The proposed project would have a less than significant cumulative impact on geology and soils.	None required.	N/A
Section 3.8—Greenhouse Gas Emissions		
Impact GHG-1: The proposed project would not generate direct and indirect greenhouse gas emissions, and these emissions would result in a significant impact on the environment.	None required.	N/A
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.	None required.	N/A
Cumulative Impact: The proposed project would have a less than significant cumulative impact on greenhouse gas emissions.	None required.	N/A
Section 3.9—Hazards and Hazardous Materials		
Impact HAZ-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	None required.	N/A
Impact HAZ-2: The proposed project could 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.	MM HAZ-2a: Prior to the issuance of a grading permit, the property owners and/or developers of properties shall ensure that a Phase I Environmental Site Assessment (Phase I ESA) (performed in accordance with the current Airborne Toxic Control Measures [ATCM] Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process [E 1527]) shall be conducted for each individual property prior to development or redevelopment to ascertain the presence or absence of Recognized Environmental Conditions (RECs), Historical Recognized Environmental Conditions (HRECs), and Potential Environmental Concerns (PECs) relevant to the property under consideration. The findings and conclusions of the Phase I ESA shall become the basis for potential recommendations for follow-up investigation, if found to be warranted.	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>MM HAZ-2b: In the event that the findings and conclusions of the Phase I Environmental Site Assessment (Phase I ESA) for a property result in evidence of Recognized Environmental Conditions (RECs), Historical Recognized Environmental Conditions (HRECs) and/or Potential Environmental Concerns (PECs) warranting further investigation, the property owners and/or developers of properties shall ensure that a Phase II ESA shall be conducted to determine the presence or absence of a significant impact to the subject site from hazardous materials. The Phase II ESA may include but may not be limited to the following: (1) Collection and laboratory analysis of soils and/or groundwater samples to ascertain the presence or absence of significant concentrations of constituents of concern; (2) Collection and laboratory analysis of soil vapors and/or indoor air to ascertain the presence or absence of significant concentrations of volatile constituents of concern; and/or (3) Geophysical surveys to ascertain the presence or absence of subsurface features of concern such as underground storage tanks (USTs), drywells, drains, plumbing, and septic systems. The findings and conclusions of the Phase II ESA shall become the basis for potential recommendations for follow-up investigation, site characterization, and/or remedial activities, if found to be warranted.</p> <p>MM HAZ-2c: In the event the findings and conclusions of the Phase II Environmental Site Assessment (Phase II ESA) reveal the presence of significant concentrations of hazardous materials warranting further investigation, the property owners and/or developers of properties shall ensure that site characterization shall be conducted in the form of additional Phase II ESAs in order to characterize the source and maximum extent of impacts from constituents of concern. The findings and conclusions of the site characterization shall become the basis for formation of a remedial action plan and/or risk assessment.</p> <p>MM HAZ-2d: If the findings and conclusions of the Phase II Environmental Site Assessment (Phase II ESA), site characterization and/or risk assessment demonstrate the presence of concentrations of hazardous materials exceeding regulatory threshold levels, prior to the issuance of a grading permit, property owners and/or developers of properties shall complete site remediation and potential risk assessment with oversight from the applicable regulatory agency including, but not limited to, the California</p>	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) or Regional Water Quality Control Board (RWQCB), and Fresno County Environmental Health Division (FCEHD). Potential remediation could include the removal or treatment of water and/or soil. If removal occurs, hazardous materials shall be transported and disposed at a hazardous materials permitted facility.</p> <p>MM HAZ-2e: Prior to the issuance of a building permit for an individual property within the Plan Area with residual environmental contamination, the agency with primary regulatory oversight of environmental conditions at such property ("Oversight Agency") shall have determined that the proposed land use for that property, including proposed development features and design, does not present an unacceptable risk to human health, if applicable, through the use of an Environmental Site Management Plan (ESMP) that could include institutional controls, site-specific mitigation measures, a risk management plan, and deed restrictions based upon applicable risk-based cleanup standards. Remedial action plans, risk management plans and health and safety plans shall be required as determined by the Oversight Agency for a given property under applicable environmental laws, if not already completed, to prevent an unacceptable risk to human health, including workers during and after construction, from exposure to residual contamination in soil and groundwater in connection with remediation and site development activities and the proposed land use.</p> <p>MM HAZ-2f: For those sites with potential residual volatile organic compounds (VOCs) in soil, soil gas, or groundwater that are planned for redevelopment with an overlying occupied building, a vapor intrusion assessment shall be performed by a licensed environmental professional. If the results of the vapor intrusion assessment indicate the potential for significant vapor intrusion into the proposed building, the project design shall include vapor controls or source removal, as appropriate, in accordance with Regional Water Quality Control Board (RWQCB), the California Department of Toxic Substances Control (DTSC) or the Fresno County Environmental Health Division (FCEHD) requirements. Soil vapor mitigations or controls could include passive venting and/or active venting. The vapor intrusion assessment as associated vapor controls or source</p>	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>removal can be incorporated into the Environmental Site Management Plan (ESMP) (Mitigation Measure HAZ4-4e).</p> <p>MM HAZ-2g: In the event of planned renovation or demolition of residential and/or commercial structures on the subject site, prior to the issuance of demolition permits, asbestos and lead-based paint (LBP) surveys shall be conducted in order to determine the presence or absence of asbestos-containing materials (ACM) and/or LBP. Removal of friable ACM, and non-friable ACMs that have the potential to become friable, during demolition and/or renovation shall conform to the standards set forth by the National Emissions Standards for Hazardous Air Pollutants (NESHAPs).</p> <p>The San Joaquin Valley Air Pollution Control District (Valley Air District) is the responsible agency on the local level to enforce the NESHAPs and shall be notified by the property owners and/or developers of properties (or their designee(s)) prior to any demolition and/or renovation activities. If asbestos-containing materials are left in place, an Operations and Maintenance Program (O&M Program) shall be developed for the management of ACM.</p> <p>MM HAZ-2h: Prior to the import of a soil to a particular property within the Plan Area as part of that property's site development, such soils shall be sampled for toxic or hazardous materials to determine whether concentrations exceed applicable Environmental Screening Levels for the proposed land use at such a property, in accordance with Regional Water Quality Control Board (RWQCB), the California Department of Toxic Substances Control (DTSC) or the Fresno County Environmental Health Division (FCEHD) requirements, prior to importing to such a property.</p>	
Impact HAZ-3: The proposed project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Implement MM HAZ-2a through MM HAZ-2h.	Less than significant impact with mitigation incorporated.
Impact HAZ-4: The proposed project could be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section	Implement MM HAZ-2a through MM HAZ-2h.	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
65962.5 and, as a result, could create a significant hazard to the public or the environment.		
Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the proposed project would not result in a safety hazard or excessive noise for people residing or working the project area.	None required.	N/A
Impact HAZ-6: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	None required.	N/A
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.	None required.	N/A
Cumulative Impact: The proposed project would have a less than significant cumulative impact on hazards and hazardous materials.	None required.	N/A
Section 3.10—Hydrology and Water Quality		
Impact HYD-1: The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	None required.	N/A
Impact HYD-2: The proposed project could substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Implement MM UTIL-2a, MM UTIL-2b, and MM UTIL-2c. MM HYD-2a: The City shall continue to be an active participant in the North Kings Groundwater Sustainability Agency (North Kings GSA) and the implementation of the North Kings Groundwater Sustainability Plan (North Kings GSP) in order to ensure that the Kings Subbasin has balanced levels of pumping and recharge. The City shall confirm that each project for future development in the Fresno Southeast Development Area Specific Plan Area (Plan Area) has incorporated any resulting standards prior to issuing	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>approval for any development applications that require discretionary approval.</p> <p>MM HYD-2b: Prior to approving development per the Southeast Development Area (SEDA) Specific Plan for the Fresno SEDA Specific Plan Area (Plan Area), the City shall evaluate the water supply system to determine whether the proposed development will exceed the existing water supply capacity. If it is determined that such development would exceed the existing water supply capacity, the City shall provide additional capacity through water system improvements for the Plan Area in accordance with the City Metropolitan Water Resources Management Plan (Metro Plan).</p> <p>MM HYD-2c: Prior to approving development per the Southeast Development Area (SEDA) Specific Plan for the Fresno SEDA Specific Plan Area (Plan Area), the City shall evaluate existing water demands to determine whether the proposed development will exceed the existing water supplies. If it is determined that such development would exceed the existing water demands, the City shall pursue the provision of adequate water supplies by securing additional water sources.</p> <p>MM HYD-2d: The City shall develop new and expand existing groundwater recharge facilities to balance increased water demands resulting from the Fresno Southeast Development Area Specific Plan Area (Plan Area). New and expanded groundwater recharge facilities shall be in accordance with the City of Fresno General Plan and City Metro Plan. The City shall complete these measures prior to approving any new project applications for future development in the project area that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval.</p> <p>MM HYD-2e: The City shall continue to develop and implement water conservation measures to reduce the per capita water use to 190 gallons per capita per day (gpcd) in accordance with the conservation target specified in the Fresno General Plan.</p>	
Impact HYD-3: The proposed project could substantially alter the existing drainage pattern of the site or area,	MM HYD-3a: The City shall support the Fresno Metropolitan Flood Control District (FMFCD) in updating the Storm Drainage and Flood Control Master	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
<p>including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:</p> <ul style="list-style-type: none"> 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? 	<p>Plan for the Plan Area to include the proposed basins and the analysis necessary to provide adequate capacity for future stormwater runoff resulting from future development of the Southeast Development Area (SEDA) Specific Plan. The City shall complete these measures prior to approving any new project applications for future development in the Fresno SEDA Specific Plan Area (Plan Area) that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval.</p> <p>MM HYD-3b: The City shall support the Fresno Metropolitan Flood Control District (FMFCD) in implementing the Storm Drainage and Flood Control Master Plan improvements for the proposed drainage areas within the Fresno Southeast Development Area Specific Plan Area (Plan Area). Any new proposed development in the Plan Area shall be reviewed by the City and FMFCD to confirm that design and construction documents have incorporated the updated Storm Drainage and Flood Control Master Plan improvements, prior to approving any such development.</p> <p>MM HYD-3c: The City shall support the Fresno Metropolitan Flood Control District (FMFCD) in reevaluating proposed Basins DW and DX for available capacities and shall expand these basins or construct additional basins to accommodate the future stormwater capacities from development in the Southeast Development Area (SEDA) Specific Plan Area (Plan Area) in accordance with the SEDA Specific Plan. The City shall complete these measures prior to approving any new project applications for future development in the Plan Area that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval.</p> <p>MM HYD-3d: The City shall implement the following measures to reduce the impacts on the capacity of existing or planned storm drainage Master Plan collection systems within the Fresno Southeast Development Area (SEDA) Specific Plan Area (Plan Area) to less than significant:</p> <ul style="list-style-type: none"> • Require developments that increase site imperviousness to install, operate, and maintain Fresno Metropolitan Flood Control District (FMFCD) approved on-site detention systems to reduce the peak runoff rates resulting from the increased imperviousness to the peak runoff 	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>rates that will not exceed the capacity of the existing stormwater collection systems.</p> <p>MM HYD-3d: The City shall implement the following measures to reduce the impacts on the capacity of existing or planned storm drainage Master Plan retention basins within the Fresno Southeast Development Area Specific Plan Area (Plan Area) to less than significant:</p> <ul style="list-style-type: none"> • Prior to approval of development projects, support the Fresno Metropolitan Flood Control District (FMFCD) in updating the Storm Drainage and Flood Control Master Plan to analyze the impacts to existing and planned retention basins within the Plan Area to determine remedial measures required to reduce the impact on retention basin capacity to less than significant. Remedial measures would include: <ul style="list-style-type: none"> – Increase the size of the retention basin through the purchase of more land or deepening the basin or a combination for planned retention basins. – Increase the size of the emergency relief pump capacity required to pump excess runoff volume out of the basin and into adjacent canals that convey the stormwater to a disposal facility for existing retention basins. – Require developments that increase runoff volume to install, operate, and maintain Low Impact Development (LID) measures to reduce runoff volume to the runoff volume that will not exceed the capacity of the existing retention basins. <p>MM HYD-3f: The City shall implement the following measures to reduce the impacts on the capacity of existing or planned storm drainage Master Plan urban detention (stormwater quality) basins within the Fresno Southeast Development Area Specific Plan Area (Plan Area) to less than significant:</p> <ul style="list-style-type: none"> • Prior to approval of development projects, support the Fresno Metropolitan Flood Control District (FMFCD) in updating the Storm Drainage and Flood Control Master Plan to determine the impacts to the urban detention weir overflow rates and determine remedial measures required to reduce the impact on the detention basin capacity to less than significant. Remedial measures would include: 	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> – Modify overflow weir to maintain the suspended solids removal rates adopted by the FMFCD Board of Directors. – Increase the size of the urban detention basin to increase residence time by purchasing more land. – Require developments that increase runoff volume to install, operate, and maintain Low Impact Development (LID) measures to reduce peak runoff rates and runoff volume to the runoff rates and volumes that will not exceed the weir overflow rates of the existing urban detention basins. <p>MM HYD-3g: The City shall implement the following measures to reduce the impacts on the capacity of existing or planned storm drainage Master Plan pump disposal systems within the Fresno Southeast Development Area Specific Plan Area (Plan Area) to less than significant:</p> <ul style="list-style-type: none"> • Prior to approval of development projects, support the Fresno Metropolitan Flood Control District (FMFCD) in updating the Storm Drainage and Flood Control Master Plan to determine the extent and degree to which the capacity of the existing pump system will be exceeded. • Require new developments to install, operate, and maintain FMFCD design standard on-site detention facilities to reduce peak stormwater runoff rates to existing planned peak runoff rates. • Provide additional pump system capacity to maximum allowed by existing permitting to increase the capacity to match or exceed the peak runoff rates determined by the Storm Drainage and Flood Control Master Plan update. 	
Impact HYD-4: The proposed project would not be located in a flood hazard zone, tsunami, or seiche zone, or risk release of pollutants due to project inundation.	None required.	N/A
Impact HYD-5: The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	None required	N/A

Impacts	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impact: The proposed project would have a less than significant cumulative impact with mitigation incorporated on hydrology and water quality.	Implement MM UTIL-2a, MM UTIL-2b, MM UTIL-2c, MM HYD-2a, MM HYD-2b, MM HYD-2c, MM HYD-2d, MM HYD-2e, MM HYD-3a, MM HYD-3b, MM HYD-3c, MM HYD-3d, MM HYD-3e, MM HYD-3f, and MM HYD-3g.	Less than significant impact with mitigation incorporated.
Section 3.11—Land Use and Planning		
Impact LAND-1: The proposed project would not physically divide an established community.	None required.	N/A
Impact LAND-2: 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.	None required.	N/A
Cumulative Impact: The project would have a less than significant cumulative impact on land use and planning.	None required.	N/A
Section 3.12—Mineral Resources		
Impact MIN-1: The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.	None required.	N/A
Impact MIN-2: The proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	None required.	N/A
Cumulative Impact: The proposed project would have a less than significant cumulative impact on mineral resources.	None required.	N/A
Section 3.13—Noise		
Impact NOI-1: The proposed project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of	MM NOI-1a: Construction Activity Hours Restriction Construction activity which requires a permit issued by the City of Fresno shall be limited to the hours between 7:00 a.m. and 10:00 p.m. on weekdays and Saturdays. Any construction activity outside of these hours	Significant and unavoidable impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	<p>must comply with the City's noise performance standards of Section 15.2506 of the Municipal Code.</p> <p>MM NOI-1b: Construction Noise Mitigation Plan Prior to the issuance of demolition, grading, and/or construction permits, applicants for individual development projects within 500 feet of noise-sensitive receptors (e.g., residences, hospitals, schools) shall conduct a project-level construction noise analysis to evaluate potential impacts on sensitive receptors. The analysis shall be conducted once the final construction equipment list that will be used for demolition and grading activities is determined. The project-level noise analysis shall be prepared, reviewed, and approved by the City of Fresno Planning Director. If the analysis determines that demolition and construction activities would result in an impact to identified noise-sensitive receptors, then specific measures to attenuate the noise impact shall be outlined in the analysis and reviewed and approved by the City of Fresno Planning Director. Specific measures may include but are not limited to the following Best Management Practices (BMPs):</p> <ul style="list-style-type: none"> • Post a construction site notice near the construction site access point or in an area that is clearly visible to the public. The notice shall include the following: job site address; permit number, name, and phone number of the contractor and owner; dates and duration of construction activities; construction hours allowed; and the City of Fresno Planning Director and construction contractor phone numbers where noise complaints can be reported and logged. • Consider the installation of temporary sound barriers for construction activities immediately adjacent to occupied noise-sensitive structures. • Restrict haul routes and construction-related traffic to the least noise-sensitive times of the day. • Reduce non-essential idling of construction equipment to no more than 5 minutes. • Ensure that all construction equipment is monitored and properly maintained in accordance with the manufacturer's recommendations to minimize noise. 	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> • Fit all construction equipment with properly-operating mufflers, air intake silencers, and engine shrouds, no less effective than as originally equipped by the manufacturer, to minimize noise emissions. • If construction equipment is equipped with backup alarm shut offs, switch off backup alarms and replace with human spotters, as feasible. • Stationary equipment (such as generators and air compressors) and equipment maintenance and staging areas shall be located as far from existing noise-sensitive land uses, as feasible. • To the extent feasible, use acoustic enclosures, shields, or shrouds for stationary equipment such as compressors and pumps. • Shut off generators when generators are not needed. • Coordinate deliveries to reduce the potential of trucks waiting to unload and idling for long periods of time. • Grade surface irregularities on construction sites to prevent potholes from causing vehicular noise. • Minimize the use of impact devices such as jackhammers, pavement breakers, and hoe rams. Where possible, use concrete crushers or pavement saws rather than hoe rams for tasks such as concrete or asphalt demolition and removal. • The final noise-reduction measures to be implemented and their associated details shall be determined by the construction-level noise analysis. The final noise-reduction measures shall be included on all construction and building documents and/or construction management plans and submitted for verification to the City; implemented by the construction contractor through the duration of the construction phase; and discussed at the pre-demolition, -grade, and/or -construction meetings. <p>MM NOI-1b: Traffic Noise Reduction Plan Prior to issuance of building permits, the property owner/developer shall be responsible to implement the following measures to limit potential traffic noise source impacts:</p> <ul style="list-style-type: none"> • Any proposed development project that would include noise-sensitive land use development along noise impacted roadway segments identified in Table 3.13-8 shall demonstrate compliance with Municipal Code 	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>Section 15-2506 by submitting a final acoustical report. This report shall demonstrate that the proposed project incorporates sufficient noise attenuation features, if needed, to meet the City's exterior/interior noise performance standards. The individual project owner/developer shall submit the acoustic study to the Planning Director for review and approval. Upon approval by the City of Fresno, the proposed acoustical design features shall be incorporated into the proposed development. Noise reduction design features may include, but are not limited to, locating noise-sensitive development on the site to be shielded by structures (buildings, enclosures, or sound walls) or by using upgraded wall and window assemblies to ensure that acceptable interior noise levels are maintained.</p> <p>MM NOI-1c: Stationary Source Noise Reduction Plan Prior to issuance of building permits, the property owner/developer shall be responsible to implement the following measures to limit operational stationary noise source impacts:</p> <ul style="list-style-type: none"> Any proposed development projects that include unshielded parking areas within 175 feet, or unshielded truck loading docks within 300 feet, or unshielded mechanical ventilation equipment systems within 35 feet of a noise-sensitive receptor, shall demonstrate compliance with Municipal Code Section 15-2506 by submitting a site specific acoustic study. These reports shall demonstrate that the proposed project incorporates sufficient noise attenuation features, if needed, to meet the City of Fresno's exterior/interior noise performance standards. The individual project owner/developer shall submit the acoustic study to the Planning Director for review and approval. Upon approval by the City, the proposed acoustical design features shall be incorporated into the proposed development. Noise reduction design features may include, but are not limited to, locating stationary noise sources on the site to be shielded by structures (buildings, enclosures, or sound walls) or by using equipment that has a quieter rating. 	
Impact NOI-2: The proposed project could result in generation of excessive groundborne vibration or groundborne noise levels.	<p>MM NOI-2: Construction Vibration Reduction Plan Prior to issuance of grading and/or building permits, a note shall be provided on grading and building plans indicating that during grading and</p>	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>construction the property owner/developer shall be responsible for requiring contractors to implement the following measures to limit construction-related vibration impacts:</p> <ul style="list-style-type: none"> • For any future development projects that would necessitate the use of pile driving within 200 feet of an off-site structure shall submit a Construction Vibration Reduction Plan that identifies specific techniques, such as the depth and location of temporary trenching, that would reduce potential vibration impacts to less than significant for the impacted structure. • For any future development projects that would necessitate the use of large vibratory rollers within 30 feet of an off-site structure, or the use of other heavy construction equipment within 15 feet of an off-site structure, shall submit a Construction Vibration Reduction Plan that identifies specific techniques, such as the depth and location of temporary trenching, that would reduce potential vibration impacts to less than significant for the impacted structure. • The individual project owner/developer shall submit the Construction Vibration Reduction Plan to the Planning Director for review and approval prior to issuance of building permits. Upon approval by the City, the construction vibration reduction measures shall be incorporated into the construction documents. 	
<p>Impact NOI-3: 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.</p>	None required.	N/A
<p>Cumulative Impact: The proposed project would have a significant and unavoidable impact regarding construction noise.</p> <p>The proposed project would have a less than significant impact with regard to all other noise and vibration impacts.</p>	No mitigation is available that would reduce cumulative construction noise impacts to less than significant.	Significant and unavoidable impact.

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 3.14—Population and Housing		
Impact POP-1: The proposed project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	None required.	N/A
Impact POP-2: The proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	None required.	N/A
Cumulative Impact: The proposed project would have a less than significant cumulative impact on population and housing.	None required.	N/A
Section 3.15—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.	None required.	N/A
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.	None required.	N/A
Impact PUB-3: The proposed project would not result in substantial adverse physical impacts associated with the	None required.	N/A

Impacts	Mitigation Measures	Level of Significance After Mitigation
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 schools.		
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, response times or other performance objectives for parks.	None required.	N/A
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, response times or other performance objectives for other public facilities.	None required.	N/A
Cumulative Impact: The proposed project would have a less than significant cumulative impact on public services.	None required.	N/A
Section 3.16—Recreation		
Impact REC-1: The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	None required.	N/A
Impact REC-2: The proposed project could include recreational facilities or require the construction or	MM REC-1: As new development occurs in the Plan Area, the City shall periodically (every 5 years) monitor residential population growth	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
expansion of recreational facilities which might have an adverse physical effect on the environment.	compared to development of new parklands for the purpose of evaluating the strength of this Plan to meet the ratio of 3 acres of parkland per 1,000 population. If the ratio is not met, the City shall explore additional ways to increase the amount of dedicated parkland in the Plan Area, including but not limited to designating additional lands for parkland development.	
Cumulative Impact: The proposed project would have a less than significant cumulative impact with mitigation incorporated on recreation.	Implement MM REC-1 .	Less than significant with mitigation incorporated.
Section 3.17—Transportation and Traffic		
Impact TRANS-1: The proposed project could conflict with a program plan, ordinance or policy of the circulation system, including transit, roadway, bicycle and pedestrian facilities.	MM TRANS-1a: Provide more options for shorter trips by encouraging vertical mixed uses and locating residential uses in walking distance (0.5 mile) to retail and employment uses.	Less than significant impact with mitigation incorporated.
	MM TRANS-1b: Provide pedestrian and bicycle network improvements within the development connecting complementary uses (i.e., residential, employment, retail, and transit stops) internally and to existing off-site facilities.	
	MM TRANS-1c: Ensure that design of key intersections and roadways encourage the use of walking, biking, and transit.	
	MM TRANS-1d: Collaborate with Fresno Transit (FAX) to provide new transit services to the proposed project and within the proposed project area.	
	MM TRANS-1e: In addition, the following Transportation Demand Management (TDM) strategies may be applicable at the implementing project level: <ul style="list-style-type: none"> • Reduce Parking Supply for Retail Uses (maximum reduction: 12.5 percent) • Add Transit Rerouting and Transit Stops (maximum reduction: 5 percent) • Implementation of Local Shuttle Service (grouped strategy with transit system improvements) • Mandatory Travel Behavior Change Program, Promotions and Marketing (maximum reduction: 1 percent) • Promotions and Marketing (maximum reduction: 1 percent) • Emergency Ride Home (ERH) Program (maximum reduction: 3 percent) 	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> • School Carpool Program (maximum reduction: 15 percent) • Bike Share (maximum reduction: 0.25 percent) • Implement/Improve On-street Bicycle Facility (maximum reduction: 0.625 percent) • Traffic Calming Improvements (maximum reduction: 1 percent) • Pedestrian Network Improvements (maximum reduction: 2 percent) 	
Impact TRANS-2: The proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	None.	N/A
Impact TRANS-3: 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).	<p>MM TRANS-3a: Lengthen the eastbound turning lane to 875 feet and the westbound turning lane to 1,150 feet for the De Wolf Avenue and State Route (SR) 180 intersection.</p> <p>MM TRANS-3b: Lengthen the westbound turning lane to 1,075 feet for the McCall Avenue and State Route (SR) 180 intersection.</p>	Less than significant impact with mitigation incorporated.
Impact TRANS-4: The proposed project could result in inadequate emergency access.	MM TRANS-4: At the time of planning application submittal, the project applicant shall prepare a Construction Management Plan (CMP) that shall specify traffic controls required to maintain adequate circulation and access throughout the Southeast Development (SEDA) Specific Plan Area. At least one lane shall remain open in each direction during construction and access to all existing businesses shall be maintained. This plan shall be subject to approval by the jurisdictional police and fire departments prior to commencement of construction.	Less than significant impact with mitigation incorporated.
Cumulative Impact: The proposed project would have a less than significant cumulative impact on transportation with mitigation incorporated.	Implement MM TRANS-1a, MM TRANS-1b, MM TRANS-1c, MM TRANS-1d, MM TRANS-1e, MM TRANS-3a, MM TRANS-3b, and MM TRANS-4.	Less than significant impact with mitigation incorporated.
Section 3.18—Utilities and Service Systems		
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	Implementation of all other mitigation measures in this Recirculated Draft PEIR would be required for all construction activities. Therefore, construction of new utilities would cause less than significant impacts with mitigation incorporated, with regard to the other potential environmental impacts discussed in this Recirculated Draft PEIR. See the Executive Summary for a summary of all mitigation measures. Mitigation measures	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
relocation of which could cause significant environmental effects.	<p>for all resource topics in this Recirculated Draft PEIR would be applicable to construction of new or expanded utility infrastructure.</p> <p>MM UTIL-1a: The City shall evaluate the water conveyance system at the time that discretionary projects are submitted for approval by the City, and the City shall not approve development that would demand additional water and exceed the capacity of a facility until additional capacity is provided. The City shall evaluate proposed water capacity and conveyance improvements provided in the City Metro Plan and General Plan for potential environmental impacts, and shall construct such improvements prior to exceedance of capacity to accommodate full buildout of the Specific Plan.</p> <p>MM UTIL-1b: The City shall evaluate the water supply system at the time that discretionary projects are submitted for approval by the City, and the City shall not approve development that would demand additional water until additional sources are secured and provided for future development. The City shall evaluate proposed water supply improvements for potential environmental impacts, and shall construct such improvements prior to exceedance of demand to accommodate full buildout of the Specific Plan.</p> <p>MM UTIL-1c: The City shall evaluate the wastewater system at the time that discretionary projects are submitted for approval by the City, and the City shall not approve development that would contribute wastewater to the wastewater treatment system that would exceed capacity until additional capacity is provided. The City shall evaluate proposed wastewater treatment improvements provided in the City Wastewater Master Plan and General Plan for potential environmental impacts, and shall construct such improvements prior to exceedance of capacity to accommodate full buildout of the Specific Plan.</p> <p>MM UTIL-1d: Consistent with the Sewer System Management Plan, the City shall evaluate the wastewater collection system at the time that discretionary projects are submitted for approval by the City, the City shall not approve development that would generate additional wastewater and exceed the capacity of a facility until additional capacity is provided. The City shall evaluate proposed wastewater collection improvements provided in the City Wastewater Master Plan and General Plan for potential</p>	

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>environmental impacts, and shall construct such improvements prior to exceedance of capacity to accommodate full buildout of the Specific Plan.</p> <p>MM UTIL-1e: The City shall support the Fresno Metropolitan Flood Control District FMFCD in evaluating the stormwater collection system and implementing the District Services Plan and Storm Drainage and Flood Control Master Plan, and in constructing such improvements to the storm drain system prior to exceedance of capacity to accommodate full buildout of the Specific Plan. The City shall complete these evaluations prior to approving any new project applications for future development in the Plan Area that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval.</p> <p>MM UTIL-1f: At the time discretionary projects are submitted, the City shall require project-specific environmental evaluations for the expansion or relocation of electric, natural gas, or telecommunication facilities be completed prior to project approval.</p>	
<p>Impact UTIL-2: The proposed project could have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.</p>	<p>Implement MM HYD-2b, MM HYD-2c, MM UTIL-1a, MM UTIL-1b, and the following:</p> <p>MM UTIL-2a: The City shall develop and implement water conservation measures to reduce the per capita water use, and continue to refine and implement water saving and conservation standards for new developments approved under the Specific Plan. The City shall complete these measures and standards prior to approving any new project applications for future development in the Plan Area that require a discretionary approval and shall confirm that each project has incorporated the refined measures and standards prior to issuing approval</p> <p>MM UTIL-2b: The City shall continue to implement the City of Fresno Water Conservation Program, as may be updated, and periodically update restrictions on water uses, and evaluate the feasibility of the conservation target identified as part of the Fresno General Plan. The City shall complete these measures prior to approving any new project applications for future development in the Plan Area that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval. The City shall continue to implement Objective RC-</p>	<p>Less than significant impact with mitigation incorporated.</p>

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>7 and Policies RC-7-a through RC-7-l of Chapter 7, “Resource Conservation and Resilience,” and Objective PU-8 and Policies PU-8-a through PU-8-g of Chapter 6, “Public Utilities and Services,” of the approved Fresno General Plan.</p> <p>MM UTIL-2c: The City shall refine landscape water conservation standards that will apply to new development installed landscapes, building on the State Model Water Efficient Landscape Ordinance (MWELO) and other State regulations. The City shall complete these standards prior to approving any new project applications for future development in the Plan Area that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval.</p>	
Impact UTIL-3: The proposed project could result in a determination by the wastewater treatment provider which serves or may serve the proposed project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.	Implement MM UTIL-1c and MM UTIL-1d .	Less than significant impact with mitigation incorporated.
Impact UTIL-4: The proposed project could 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.	MM UTIL-4: The City shall evaluate additional landfill locations at the time discretionary projects are submitted and shall not approve development that could contribute solid waste to a landfill that is at capacity until additional capacity is provided.	Less than significant impact with mitigation incorporated.
Impact UTIL-5: The proposed project would comply with federal, State, and local statutes and regulations related to solid waste.	None required.	N/A
Cumulative Impact: The proposed project would have a less than significant cumulative impact with mitigation incorporated on utilities and service systems.	<p>Mitigation measures identified for the various resource topics in this Recirculated Draft PEIR would reduce the cumulative impacts of construction of utility infrastructure to less than significant.</p> <p>Implement MM HYD-2b, MM HYD-2c, MM UTIL-1a, MM UTIL-1b, MM UTIL-1c, MM UTIL-1d, MM UTIL-1e, MM UTIL-1f, MM UTIL-2a, MM UTIL-2b, MM UTIL-2c, and MM UTIL-4.</p>	Less than significant impact with mitigation incorporated.

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 3.19—Wildfire		
Impact WILD-1: The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.	None required.	N/A
Impact WILD-2: The proposed project would not 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.	None required.	N/A
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.	None required.	N/A
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.	None required.	N/A
Cumulative Impact: The proposed project would have a less than significant cumulative impact on wildfires.	None required.	N/A

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CHAPTER 1: INTRODUCTION

1.1 - Overview of the CEQA Process

This Recirculated Draft Program Environmental Impact Report (Recirculated Draft PEIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the proposed Fresno Southeast Development Area (SEDA) Specific Plan Project (proposed project) (State Clearinghouse No. 2022020486). This document is prepared in conformance with CEQA (California Public Resources Code [PRC], § 21000, *et seq.*) and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, § 15000, *et seq.*). This Recirculated Draft PEIR is intended to serve as an informational document for the public agency decision makers and the public regarding the proposed project.

1.1.1 - Overview

The proposed project is a Specific Plan for the SEDA that would provide for increased density and accelerate housing production throughout the approximately 9,000-acre Plan Area. The proposed project would offer flexibility in meeting the evolving needs of households in the region through a multimodal transportation network and diverse housing types and affordability levels. It has the potential to accommodate approximately 45,000 homes and 37,000 jobs within the Plan Area by the year 2050. The proposed project is framed with three interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed project would link a series of complete communities and mixed-use centers with a multimodal transportation network. Additionally, the proposed project would include major transit lines, mixed-use centers, diverse residential districts, employment districts, open space, agriculture, and green infrastructure. Exhibit 1-1 shows the proposed general land use designations of the Specific Plan.

1.1.2 - Purpose and Authority

This Recirculated Draft PEIR provides a project-level analysis of the environmental effects of the proposed project. The environmental impacts of the proposed project are analyzed in the Recirculated Draft PEIR 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 planning, construction, or operation of the project. It also identifies appropriate and feasible mitigation measures and alternatives that may be adopted to significantly reduce or avoid these impacts.

CEQA requires that an EIR contains, at a minimum, certain specific elements. These elements are contained in this Recirculated Draft PEIR and include:

- Table of Contents
- Introduction
- Executive Summary
- Project Description
- Environmental Setting, Significant Environmental Impacts, and Mitigation Measures

- Cumulative Impacts
- Significant Unavoidable Adverse Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts
- Areas of Known Controversy

1.1.3 - Lead Agency Determination

The City of Fresno 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 Recirculated Draft PEIR in the decision-making or permit process and consider the information in this Recirculated Draft PEIR along with other information that may be presented during the CEQA process.

This Recirculated Draft PEIR was prepared by FirstCarbon Solutions (FCS), an environmental consultant. Prior to public review, it was extensively reviewed and evaluated by the City of Fresno. This Recirculated Draft PEIR reflects the independent judgment and analysis of the City of Fresno as required by CEQA. Lists of organizations and persons consulted and the report preparation personnel are provided in Chapter 6 of this Recirculated Draft PEIR.

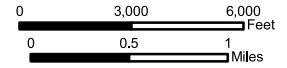
SEDA PROPOSED LAND USE MAP

Southeast Development Area

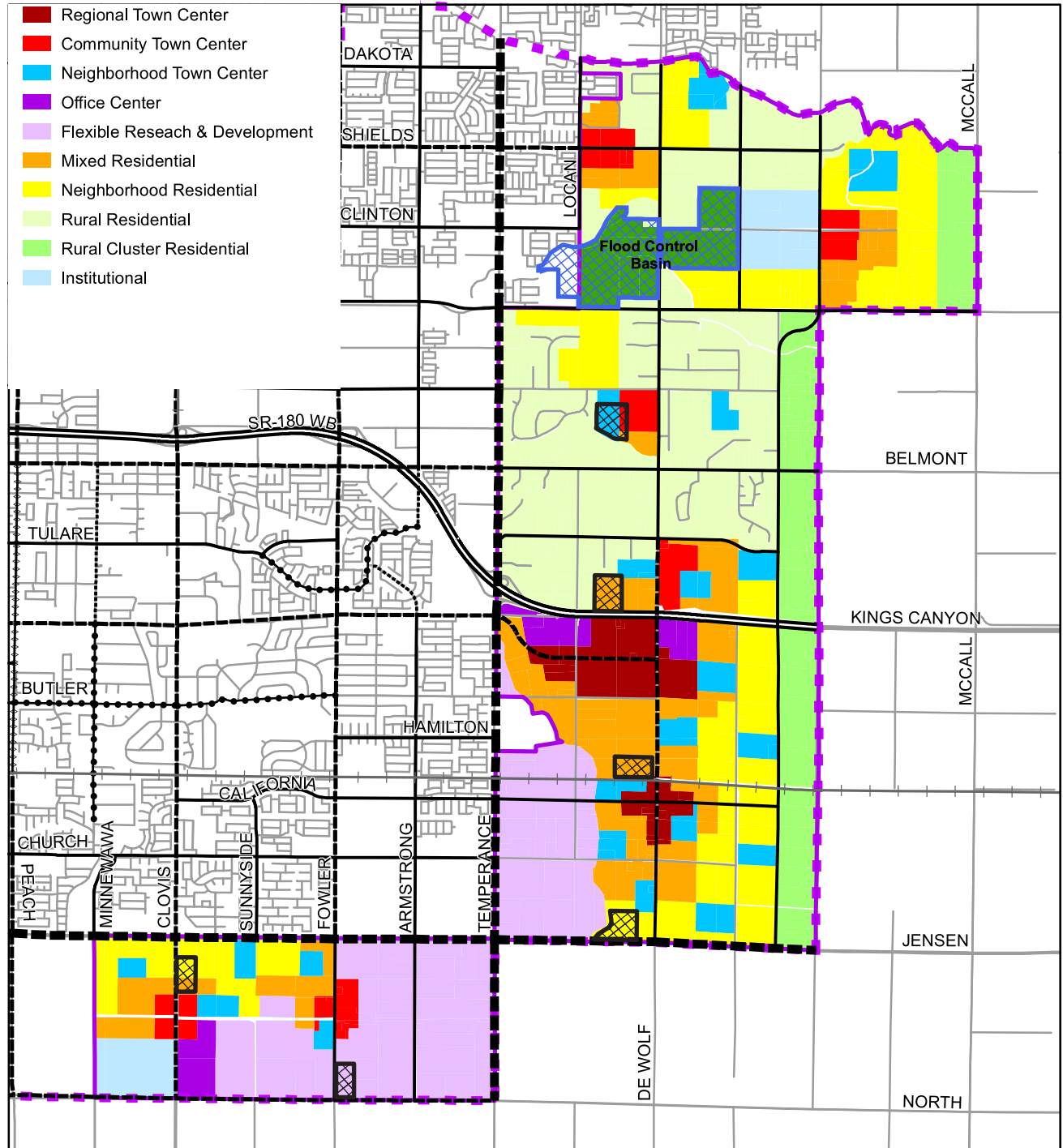
- Freeway
- Expressway
- Scenic Expressway
- Super Arterial
- Arterial
- Scenic Arterial
- Scenic Drive
- Collector
- Scenic Collector
- Southeast Development Area
- Fresno Sphere of Influence
- Major & Local Roads
- Railroads

FLOOD BASINS

- Existing
- Proposed SEDA



Source: City of Fresno, SEDA Illustrative Plan derived from community and stakeholder meetings.



Source: City of Fresno, SEDA Regulating Districts, 07/2023. Fresno Metropolitan Flood Control District, 8/22/2023.

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Exhibit 1-1
Specific Plan Map

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1.2 - Scope of the Draft Program EIR

This Recirculated Draft PEIR addresses the potential environmental effects of the proposed project. The City of Fresno issued a Notice of Preparation (NOP) for the proposed project on February 22, 2022, which circulated between February 22, 2022, to March 25, 2022, for the statutory 30-day public review period. The scope of this Recirculated Draft PEIR includes the potential environmental impacts identified in the NOP and issues raised by agencies and the public in response to the NOP. The NOP is contained in Appendix A of this Recirculated Draft PEIR.

Fourteen comment letters were received in response to the NOP. They are listed in Table 1-1 and provided in Appendix A of this Recirculated Draft PEIR.

Table 1-1: NOP Comment Letters

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
Public Agencies				
California Department of Conservation	Monique Wilber, Conservation Program Support Supervisor	March 14, 2022	<ul style="list-style-type: none"> • Recommendation to consider agricultural conservation easements as mitigation. • Request for the Draft PEIR to discuss the type, amount, and location of farmland conversion resulting from the proposed project. • Request for the Draft PEIR to evaluate impacts on any current or future agriculture operations in the vicinity. • Request for the Draft PEIR to evaluate incremental impacts leading to cumulative impacts on agricultural land. • Request for the Draft PEIR to include mitigation measures for impacts to agricultural land. • Request for the Draft PEIR to evaluate the project's compatibility with any agricultural land enrolled in a Williams Act contract and notify the Department of 	<ul style="list-style-type: none"> • Section 3.2, Agricultural Resources and Forestry Resources • Section 3.2, Agricultural Resources and Forestry Resources • Section 3.2, Agricultural Resources and Forestry Resources • Section 3.2, Agricultural Resources and Forestry Resources • Section 3.2, Agricultural Resources and Forestry Resources • Section 3.2, Agricultural Resources and Forestry Resources

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			Conservation of non-renewal and/or cancellation of a Williams Act contract.	
California Department of Fish and Wildlife	Julie A. Vance, Regional Manager	March 25, 2022	<ul style="list-style-type: none"> Acknowledgment that the California Department of Fish and Game (CDFW) is a trustee and responsible agency for the proposed project. Requests that the Draft PEIR analyze potential impacts on the special-status species identified in the comment letter and provides necessary mitigation measures to reduce impacts to a less than significant level. 	<ul style="list-style-type: none"> N/A Section 3.4, Biological Resources
California Department of Toxic Substances Control	Gavin McCreary, Project Manager, Site Evaluation and Remediation Unit	March 15, 2022	<ul style="list-style-type: none"> Requests that the Draft PEIR acknowledge the potential for historic or future activities to result in the release of hazardous waste/substances. Recommends that all future development under the proposed project collect soil samples for lead analysis prior to performing any intrusive activities. Recommends that all future development under the proposed project conduct surveys for the presence of lead-based paints, mercury, asbestos containing materials, and polychlorinated biphenyl caulk before demolishing any buildings. Requests that Draft PEIR require any future development under the proposed project that requires the importation of soil to backfill any excavated 	<ul style="list-style-type: none"> Section 3.9, Hazards and Hazardous Materials Section 3.9, Hazards and Hazardous Materials; and Section 3.7, Geology, Soils, and Seismicity Section 3.9, Hazards and Hazardous Materials Section 3.9, Hazards and Hazardous Materials; and Section 3.7, Geology, Soils, and Seismicity

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>areas to conduct the proper sampling to ensure that the imported soil is free of contamination.</p> <ul style="list-style-type: none"> • Requests that the Draft PEIR requires any future development under the proposed project that is developed on land containing agricultural uses, weed abatement activities, or related activities to conduct a proper investigation for organochlorinated pesticides. • Recommends that the current and former agricultural lands in the Plan Area be evaluated in accordance with the California Department of Toxic Substances Control (DTSC) 2008 Interim Guidance for Sampling Agricultural Properties (Third Addition). 	<ul style="list-style-type: none"> • Section 3.9, Hazards and Hazardous Materials • Section 3.9, Hazards and Hazardous Materials; and Section 3.2, Agricultural Resources and Forestry Resources
California Department of Transportation	David Padilla, Branch Chief, Transportation Planning-North	March 18, 2022	<ul style="list-style-type: none"> • Recommends that a peak-hour ramp queue analysis is completed at each of the following State Route (SR) 180 interchanges to determine potential impacts: Clovis Avenue, Fowler Avenue, and Temperance Avenue. • Recommends that a peak-hour ramp queue analysis is completed at each of the following SR-180 intersections to determine potential impacts: De Wolf Avenue, Highland Avenue, and McCall Avenue. • Requests all future development proposals to evaluate traffic safety impacts on the State Highway Systems due to new pedestrian and 	<ul style="list-style-type: none"> • Section 3.17, Transportation and Traffic • Section 3.17, Transportation and Traffic • Section 3.17, Transportation and Traffic

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>bicyclist needs due to the proposed project, specifically SR-180 interchanges at Fowler Avenue and Temperance Avenue and intersections at De Wolf Avenue, Highland Avenue, and McCall Avenue.</p> <ul style="list-style-type: none"> • Requests that all future development under the proposed project should conduct a Vehicles Miles Traveled (VMT) analysis and determine whether development under the proposed project would be required to pay a VMT Mitigation Impact Fee. • Requests that project proponents consider allocating a portion of future residential development as affordable housing units. • Recommends that the City establish policies for the installation of Level 2 Electric Vehicle (EV) charging for single-and multi-family residential units as well as DC Fast Charging EV charging stations for retail, commercial, park and public facilities. • Recommends that the Draft PEIR include implementation guidelines for multimodal strategies, such as those that originate from Transit Oriented Development (TOD), in an effort to further reduce future projects' traffic related impacts. • Support of active transportation plans and smart growth efforts that 	<ul style="list-style-type: none"> • Section 3.17, Transportation and Traffic • Section 3.17, Transportation and Traffic • Section 3.17, Transportation and Traffic • Section 3.17, Transportation and Traffic • Section 3.17, Transportation and Traffic

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>support the State's 2050 Climate goals.</p> <ul style="list-style-type: none"> Requests early engagement on all future development under the proposed project that could affect the state right-of-way. 	<ul style="list-style-type: none"> Section 3.17, Transportation and Traffic
Fresno County Department of Public Works and Planning, Development Service and Capital Projects Division	David Randall, Senior Planner	March 24, 2022	<ul style="list-style-type: none"> Identifies locations within the Plan Area that are within Special Flood Hazard Areas, which would be subject to Fresno County Ordinance Code Title 15, Chapter 15.48 as well as Federal Emergency Management Agency (FEMA) flood elevation requirements as applicable. States that any construction within or near a stream will require a clearance from CDFW and Streambed Alteration Agreement if buildout would result in alteration or degradation. Recommends that any improvements constructed within or near a canal should be coordinated with the owners of the canal/appropriate agency. Recommends that the Fresno Metropolitan Flood Control District be consulted regarding future development near flood drainage basins. Recommends that any construction and/or development within an Agricultural Preserve consult with/obtain approval from the County Policy and Planning Department. 	<ul style="list-style-type: none"> Section 3.7, Geology, Soils, and Seismicity; Section 3.10, Hydrology and Water Quality; and Section 3.19, Wildfire Section 3.4, Biological Resources; and Section 3.10, Hydrology and Water Quality Section 3.10, Hydrology and Water Quality Section 3.10, Hydrology and Water Quality Section 3.2, Agricultural Resources and Forestry Resources

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<ul style="list-style-type: none"> Identifies that any future development under the Specific Plan that would be greater than 1 acre would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit and produce a Storm Water Pollution Prevention Plan (SWPPP). Recommends that a Traffic Impact Study be prepared. States that any work done within the County-road right-of-way to construct a new driveway or improve an existing driveway will require an Encroachment Permit from the Road Maintenance and Operations Division. States that any encroachment or access over the Southern Pacific Railroad right-of-way would require approval from the owner. States that any grading will require either an engineered grading and drainage plan, road improvement plan, permit or voucher and must comply with the City standards/requirements. Requests that all engineered grading and drainage plans, road improvement plans, permits, and vouchers also be forwarded to the City of Fresno. States that any future development under the SEDA Specific Plan that would use or handle hazardous materials 	<ul style="list-style-type: none"> Section 3.10, Hydrology and Water Quality Section 3.17, Transportation and Traffic Section 3.17, Transportation and Traffic N/A Section 3.7, Geology, Soils, and Seismicity; Section 3.10, Hydrology and Water Quality; and Section 3.17, Transportation and Traffic N/A Section 3.9, Hazards and Hazardous Materials

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>would be required to meet the requirements set forth in the California Health and Safety Code (HSC), Division 20, Chapter 6.95, and the California Code of Regulations Title 22, Division 4.5. Any businesses handling hazardous waste must submit a Hazardous Materials Business Plan pursuant to HSC, Division 20, Chapter 6.95, Section 25507.</p> <ul style="list-style-type: none"> States that an Underground Storage Tank (UST) Removal Permit from the Fresno County Department of Public Health, Environmental Health Division must be obtained if any petroleum USTs are discovered during construction. States that all water wells and septic systems identified at a future development site that are not intended to be used would be properly removed by a licensed contractor. Requested that all appropriate measures be incorporated during the construction phase of any future development to minimize potentially significant short-term noise impacts to noise-sensitive receivers. Requests that all future projects must conform with applicable standards of the Noise Element of the City of Fresno General Plan. 	<ul style="list-style-type: none"> Section 3.9, Hazards and Hazardous Materials Section 3.9, Hazards and Hazardous Materials Section 3.13, Noise Section 3.13, Noise

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<ul style="list-style-type: none"> States that the County has a water-providing Community Service Area (CSA) (CSA 14) which is interested in connecting to the City's water system and that the County has several road CSAs within the Plan Area. Requests that the Design Division be forwarded any transportation studies associated with SEDA. 	<ul style="list-style-type: none"> Section 3.10, Hydrology and Water Quality; and Section 3.18, Utilities and Service Systems N/A
Fresno County Historical Landmarks and Records Advisory Commission	Bill Secrest, Librarian, Heritage Center, Fresno County Public Library	February 24, 2022	<ul style="list-style-type: none"> Request to be notified of all future development under the proposed project that may have impacts on cultural and tribal cultural resources. Expressed concern that the Plan Area may contain houses and structures of historical interest (in excess of 100 years of age) with an outside possibility of Yokuts artifacts present. 	<ul style="list-style-type: none"> Section 3.5, Cultural Resources and Tribal Cultural Resources Section 3.5, Cultural Resources and Tribal Cultural Resources
Fresno Irrigation District	Laurence Kimura, PE, Chief Engineer	March 25, 2022	<ul style="list-style-type: none"> Identifies the Flood Irrigation District (FID) canals in the Plan Area. States that many of the existing facilities will need to be upgraded to meet the current urban standards or relocated by the developer to accommodate new urban developments which will require new pipelines and new exclusive easements. Requires that all open channels and existing pipelines impacted by the project area development to be upgraded to meet FID's current standards for urban, 	<ul style="list-style-type: none"> Section 3.10, Hydrology and Water Quality Section 3.10, Hydrology and Water Quality; and Section 3.18, Utilities and Service Systems Section 3.10, Hydrology and Water Quality; and Section 3.18, Utilities and Service Systems

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>rural, and industrial areas.</p> <ul style="list-style-type: none"> Requires that development impacts to large canal crossings to be designed to protect the canal's integrity for an urban setting including the need for access and full right-of-way widths for FID's operations and maintenance needs. Identifies that the FID facilities within the Plan Area carry irrigation water for FID users, recharge water for the City, and flood waters during winter months. Provides provisions for public roads used to access canals. Provides provisions for construction on canal banks. Provides provisions for trails that are master planned as part of SEDA that occur along canals. Requires that development within the Plan Area will not result in an increase in the City's surface water allocation from FID. Requests that the Draft PEIR evaluate whether the City's Water Master Plan needs to be updated and how the Cooperative Agreement between the City and FID may impact development within the Plan Area. Requests that the Draft PEIR evaluate whether previous projects proposed under the 	<ul style="list-style-type: none"> Section 3.10, Hydrology and Water Quality; and Section 3.18, Utilities and Service Systems Section 3.10, Hydrology and Water Quality N/A N/A N/A Section 3.10, Hydrology and Water Quality; and Section 3.18, Utilities and Service Systems Section 3.10, Hydrology and Water Quality; and Section 3.18, Utilities and Service Systems Section 3.10, Hydrology and Water Quality; and Section

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>City's Water Master Plan resulted in the benefits anticipated.</p> <ul style="list-style-type: none"> • Requests that the Draft PEIR require that any future development minimize water demand and/or reduce impacts to groundwater. • Requires that any future development under SEDA that uses treated surface water during a period where the City has a deficit water supply or groundwater levels continue to drop then the City must acquire additional water from a water purveyor as to not impact water supplies or exacerbate the deficit. • Identifies that groundwater overdraft is an issue in the City and requires that the Draft PEIR evaluates the Specific Plan's impact on groundwater resources. 	<p>3.18, Utilities and Service Systems</p> <ul style="list-style-type: none"> • Section 3.10, Hydrology and Water Quality; and Section 3.18, Utilities and Service Systems • Section 3.10, Hydrology and Water Quality; and Section 3.18, Utilities and Service Systems • Section 3.10, Hydrology and Water Quality; and Section 3.18, Utilities and Service Systems
Fresno Metropolitan Flood Control District (FMFCD)	Denise Wade, Master Plan Special Projects Manager	March 25, 2022	<ul style="list-style-type: none"> • States that FMFCD intends to work with the City to provide Master Planned drainage area systems to serve the Plan Area. • States that approximately 4,200 acres of the Plan Area is outside the current FMFCD boundary and thus the FMFCD's sphere of influence will be adjusted to include the Plan Area. • Requires that all impacts to stormwater runoff created by increasing densities in developed area that effect the capacity of the existing Master Planned storm 	<ul style="list-style-type: none"> • N/A • Section 3.10, Hydrology and Water Quality • Section 3.10, Hydrology and Water Quality

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>drainage system must be fully mitigated.</p> <ul style="list-style-type: none"> States that FMFCD has studied the areas not currently located within a Master Planned area and has located the tentative basin facilities in an attached Exhibit that must be incorporated in the SEDA Proposed Land Use plan. States that the City, FMFCD, and the County are all currently covered as Co-Permittees for the Municipal Separate Storm Sewer System (MS4) discharges through NPDES and discusses procedure for future projects under SEDA for permitting. Requests that all future CEQA review within the City, including the SEDA area, utilize the <i>Guidance for Addressing Stormwater Quality for CEQA Review</i> documents. States that existing FMFCD policy requires post-development requirements for areas not served by stormwater basins or areas that discharge to sensitive waterbodies. Should future development under SEDA include sustainable infrastructure, coordination between the City and FMFCD must take place to ensure plans are suited to meet stormwater quality regulatory objectives and compatible with drainage standards in the 	<ul style="list-style-type: none"> Section 3.10, Hydrology and Water Quality Section 3.10, Hydrology and Water Quality Section 3.10, Hydrology and Water Quality Section 3.10, Hydrology and Water Quality

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>Fresno area.</p> <ul style="list-style-type: none"> • Recommends that the Draft EIR evaluate impacts related to the construction of master planned storm drainage facilities to the extent feasible to prevent duplicate CEQA processing. • Future development under SEDA would be subject to drainage fees pursuant to the Drainage Fee Ordinance prior to approval of any final maps and/or issuance of building permits at the rates in effect at the time of such approval. • Requires that the grading of proposed development within the Plan Area shall be designed such that there are not adverse impacts to the passage of major storm flow through that development. • Requires that future development provide any surface flowage easements or covenants for any portions of the developing area that cannot convey stormwater to public right-of-way without crossing private property. • Requires that FMFCD review and approve the final improvement plans for all development (i.e., grading, street improvement and storm drain facilities) within the boundaries of the proposed project to ensure consistency with the future Storm Drainage Master Plan. 	<ul style="list-style-type: none"> • Section 3.10, Hydrology and Water Quality • Section 3.10, Hydrology and Water Quality • Section 3.10, Hydrology and Water Quality • Section 3.10, Hydrology and Water Quality • Section 3.10, Hydrology and Water Quality

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<ul style="list-style-type: none"> Requires that a storm drain easement be obtained whenever storm drain facilities are located on private property. No encroachments into the easement will be permitted including, but not limited to, foundations, roof overhangs, swimming pools, and trees. Requires that all future development verify that permanent drainage service is available with FMFCD to ensure that runoff can be safely conveyed to existing Master Plan facilities. Encourages but does not require that roof drains from nonresidential development be constructed such that they are directed onto and through a landscaped grassy swale area to filter out pollutants from roof runoff. Requires that runoff from areas where industrial activities, product, or merchandise come into contact with and thus contaminate stormwater must be directed through landscaped areas or otherwise treated before discharging it off-site or into a storm drain. 	<ul style="list-style-type: none"> Section 3.10, Hydrology and Water Quality Section 3.10, Hydrology and Water Quality Section 3.10, Hydrology and Water Quality Section 3.10, Hydrology and Water Quality
Native American Heritage Commission	Cameron Vela, Cultural Resources Analyst	February 23, 2022	<ul style="list-style-type: none"> Requires that the preparation of the Draft PEIR and Specific Plan adhere to Assembly Bill (AB) 52 and Senate Bill (SB) 18. 	<ul style="list-style-type: none"> Section 3.5, Cultural Resources and Tribal Cultural Resources
San Joaquin Valley Air Pollution	Brian Clements, Director of Permit Services	March 24, 2022	<ul style="list-style-type: none"> Recommends that the Draft PEIR demonstrates the project's compliance with all 	<ul style="list-style-type: none"> Section 3.3, Air Quality; and Section

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
Control District (SJVAPCD)			<p>applicable goals, policies, and objectives outlined in CARB's Air Quality and Land Use Handbook: A Community Health Perspective and CARB's Freight Handbook Concept Paper.</p> <ul style="list-style-type: none"> • Recommends that the Draft PEIR include modeling to assess, characterize, and mitigate project-level construction and operational emissions and air quality impacts. • States that a health risk assessment (HRA) should be performed for future projects within the SEDA. • Offers availability to review Health Risk Assessment (HRA) protocols and analyses and requires the following components for analysis: HRA AERMOD model files, HARP2 files, and a summary of emission source location, emission rates, and emission factor calculations and methodology. • Suggests that development projects resulting in toxic air contaminant (TAC) emissions should be located an adequate distance from residential areas and sensitive receptors. • Recommends that the Draft PEIR require an Ambient Air Quality Analysis (AAQA) to be performed for any future development project with emissions that exceed 100 	<p>3.8, Greenhouse Gas Emissions</p> <ul style="list-style-type: none"> • Section 3.3, Air Quality; and Section 3.8, Greenhouse Gas Emissions • Section 3.3, Air Quality • Section 3.3 Air Quality • Section 3.3, Air Quality; and Section 3.8, Greenhouse Gas Emissions • Section 3.3, Air Quality; and Section 3.8, Greenhouse Gas Emissions

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>pounds per day of any pollutant.</p> <ul style="list-style-type: none"> • Recommends the Draft PEIR discuss the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA) for this project. • Recommends the Draft PEIR analyze methods to reduce VMT, GHG emissions, and air quality impacts by reviewing heavy-duty truck routing patterns, reducing idling of heavy-duty trucks, and using the cleanest available heavy heavy-duty (HHD) trucks and vehicles. • Recommends use of zero-emission technologies for all on-site service equipment and on-road equipment, as feasible. • Recommends that the Draft PEIR include a measure requiring the assessment and potential installation, as technologically feasible, of particulate matter emission control systems for new large restaurants operating under-fired charbroilers. • Describes incentive funding for Valley businesses that covers the cost of purchasing, installing, and maintaining the particulate matter emission control system for up to two years. • Recommends the Draft PEIR consider incorporating vegetative barriers and urban 	<ul style="list-style-type: none"> • Section 3.3, Air Quality; and Section 3.8, Greenhouse Gas Emissions • Section 3.3, Air Quality; Section 3.8, Greenhouse Gas Emissions; and Section 3.17, Transportation and Traffic • Section 3.3, Air Quality; and Section 3.8, Greenhouse Gas Emissions • Section 3.3, Air Quality; and Section 3.8, Greenhouse Gas Emissions • Section 3.3, Air Quality; and Section 3.8, Greenhouse Gas Emissions • Section 3.3, Air Quality; and Section 3.8, Greenhouse Gas Emissions

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>greening as a measure to further reduce air pollution exposure of sensitive receptors.</p> <ul style="list-style-type: none"> • Suggests that the Draft PEIR consider the feasibility of incorporating solar power systems as an emission reduction strategy for future projects within the SEDA Plan Area. • Explains that the District offers incentives to public agencies, businesses, and property owners of multi-unit dwellings to install electric charging infrastructure. • Suggests that the City and project proponents install electric vehicle chargers at project sites and at strategic locations throughout the SEDA. • Recommends that any project proponent whose project is determined to have a potentially significant odor impact should be required to draft and maintain an Odor Management Plan. • Requests that the Draft PEIR analyzes the proposed project's compliance with applicable SJVAPCD rules and regulations. 	<p>3.4, Biological Resources</p> <ul style="list-style-type: none"> • Section 3.3, Air Quality; and Section 3.8, Greenhouse Gas Emissions • Section 3.3, Air Quality; and Section 3.8, Greenhouse Gas Emissions • Section 3.3, Air Quality; Section 3.6, Energy; and Section 3.8, Greenhouse Gas Emissions • Section 3.3, Air Quality • Section 3.3, Air Quality; and Section 3.8, Greenhouse Gas Emissions
Sanger Unified School District	Ryan Kilby, Chief Operations Officer	March 25, 2022	<ul style="list-style-type: none"> • Request that the Draft PEIR analyze whether the number of schools shown is appropriate to adequately serve the SEDA buildout population. 	<ul style="list-style-type: none"> • Section 3.15, Public Services

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<ul style="list-style-type: none"> States that a new high school (Sanger West) and middle schools serving 7-8 grades will serve SEDA population. Recommends that at least one additional high school and one additional middle school will be needed to serve the buildout of SEDA. States that any future school site locations designated as part of the Specific Plan. should be considered conceptual rather than locked into parcel location. States that, in order to obtain a California Department of Education site approval for a school site, the District has to go through a site-specific CEQA process, a rigorous hazardous materials testing process under the oversight of the DTSC as well as other safety studies. 	<ul style="list-style-type: none"> Section 3.15, Public Services Section 3.15, Public Services Section 3.15, Public Services Comment noted; topics fall outside the scope of the EIR. However, comment letter will be included in Appendix A, NOP comments.
Organizations				
Carpenters Local 701, United Brotherhood of Carpenters and Joiners of America	Travis Alexander	March 25, 2022	<ul style="list-style-type: none"> Requests that the Specific Plan include mandatory policies within the Economic Opportunity and Environmental Justice chapter that promotes apprenticeships for construction under the proposed project. Requests that the Specific Plan include a Local Hire Policy, which requires each construction contractor to hire a minimum of 25 percent of staff for each apprenticeable craft job classification with more than 	<ul style="list-style-type: none"> N/A N/A

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>four employees whose primary residence is within the Counties of Fresno, Kings, Madera, or Tuolumne for at least 180 days after the project's Notice to Proceed.</p> <ul style="list-style-type: none"> • Support of the benefits to the community that would be included as part of the apprenticeship and local hire policies. 	<ul style="list-style-type: none"> • N/A
Dunlap Band of Mono Indians	Dirk Charlie, Dunlap Mono Tribal Liaison	N/A	<ul style="list-style-type: none"> • Suggest that the City contact the following tribes to inquire if they are aware of any historical and/or cultural resources in the Plan Area: Table Mountain Ranch, Big Sandy, and Traditional Transundi Tribe. 	<ul style="list-style-type: none"> • Section 3.5, Cultural Resources and Tribal Cultural Resources
Leadership Counsel of Justice and Accountability (LCJA), Fresno Building Healthy Communities (FBHC), Central California Environmental Justice Network (CCEJN), and Fresno Barrios Unidos (FBU)	Karla Martinez, LCJA; Kimberly McCoy, FBHC; Nayamin Martinez, CCEJN; and Ruben Espinoza, FBU	March 25, 2022	<ul style="list-style-type: none"> • Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the Plan Area. • Requests that the Draft PEIR identifies plan alternatives, which would mitigate negative impacts of the plans. • Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impact. • Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including state and federal fair housing, civil rights, and climate laws such 	<ul style="list-style-type: none"> • All topical sections contained within the Draft PEIR • Chapter 5, Alternatives • All topical sections contained within the Draft PEIR • All topical sections contained within the Draft PEIR

Agency/ Organization	Author	Date	Comments/Topics Discussed in Letter	Corresponding Recirculated Draft PEIR Section where Comments are Addressed
			<p>as SB 743.</p> <ul style="list-style-type: none"> Requests that the City meaningfully engage with the public through a robust, accessible, and responsive process. 	<ul style="list-style-type: none"> Chapter 1, Introduction; and Chapter 2, Project Description

Source: Compiled by FirstCarbon Solutions (FCS) 2022.

1.2.1 - Potentially Significant Environmental Issues

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

- Aesthetics, Light, and Glare
- Agriculture Resources and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Wildfire

As identified in the NOP, there are no topical areas that were initially determined not to be significant, and thus, this Recirculated Draft PEIR does not include a section for Effects Found not to be Significant.

1.3 - Organization of the Recirculated Draft Program EIR

This Recirculated Draft PEIR 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 Recirculated Draft PEIR. A brief description of the areas of controversy and issues to be resolved, and overview of the Mitigation Monitoring and Reporting Program (MMRP), in addition to a table that summarizes the impacts, mitigation measures, and level of significance after mitigation, are also included in this section.
- **Chapter 1: Introduction.** This Chapter provides an introduction and overview describing the purpose of this Recirculated Draft PEIR, 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 its location, site, and project characteristics. A discussion of the project objectives, intended uses of the Recirculated Draft PEIR, responsible agencies, and approvals that are needed for the proposed project are also provided.
- **Chapter 3: Environmental Impact Analysis.** This chapter analyzes the environmental impacts of the proposed project. Impacts are organized into major topic areas. Each topic area includes a description of the environmental setting, methodology, significance criteria, impacts, mitigation measures, and significance after mitigation. The specific environmental topics that are addressed within Chapter 3 are as follows:
 - **Section 3.1—Aesthetics, Light, and Glare:** Addresses the potential visual impacts of development intensification and the overall increase in illumination produced by the proposed project.
 - **Section 3.2—Agricultural Resources and Forestry Resources:** Addresses the 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. In addition, the section also evaluates project emissions of toxic air contaminants.
 - **Section 3.4—Biological Resources:** Addresses potential impacts on habitat, vegetation, and wildlife; the potential degradation or elimination of important habitat; and impacts on listed, proposed, and candidate threatened and endangered species.
 - **Section 3.5—Cultural Resources and Tribal Cultural Resources:** Addresses potential impacts on historical resources, archaeological resources, paleontological resources, and burial sites, and additionally addresses potential project impacts related to tribal cultural resources.
 - **Section 3.6—Energy:** Addresses potential project impacts related to energy usage.
 - **Section 3.7—Geology, Soils, and Seismicity:** Addresses the potential impacts the project may have on soils and assesses the effects of project development in relation to geologic and seismic conditions.
 - **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 in the project area that may have the potential to impact human health.
 - **Section 3.10—Hydrology and Water Quality:** Addresses the potential impacts of the project on local hydrological conditions, including drainage areas, and changes in the flow rates.
 - **Section 3.11—Land Use and Planning:** Addresses the potential land use impacts associated with division of an established community and consistency with the Specific Plan and Fresno General Plan.
 - **Section 3.12—Mineral Resources:** Address potential impacts to mineral resources.
 - **Section 3.13—Noise:** Addresses potential noise impacts during construction and at project buildout from mobile and stationary sources. The section also addresses the impact of noise generation on neighboring uses.
 - **Section 3.14—Population and Housing:** Addresses the potential of the proposed project to induce direct or indirect population growth.

- **Section 3.15—Public Services:** Addresses potential impacts upon public services, including fire protection, law enforcement, schools, parks, and recreational facilities.
 - **Section 3.16—Recreation:** Addresses potential impacts related to parks and park usage.
 - **Section 3.17—Transportation and Traffic:** Addresses potential impacts related to the local and regional roadway system and public transportation, bicycle, and pedestrian access.
 - **Section 3.18—Utilities and Services Systems:** Addresses potential impacts related to service providers, including fire protection, law enforcement, water supply, wastewater, solid waste, and energy providers.
 - **Section 3.19—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: Other CEQA Considerations.** This chapter provides a summary of significant environmental impacts, including unavoidable and growth-inducing impacts. This chapter discusses the cumulative impacts associated with the proposed project, including the impacts of past, present, and probable future projects. In addition, the proposed project’s energy demand is discussed.
 - **Chapter 5: Alternatives to the Proposed Project.** This chapter compares the impacts of the proposed project with three land-use project alternatives: the No Project Alternative, the Consolidated Business Park Alternative, and the Farmland Conservation Alternative. An environmentally superior alternative is identified. In addition, alternatives initially considered but rejected from further consideration are discussed.
 - **Chapter 6: Persons and Organizations Consulted/List of Preparers.** This chapter contains a full list of persons and organizations that were consulted during the preparation of this Recirculated Draft PEIR. This Chapter also contains a full list of the authors who assisted in the preparation of the Recirculated Draft PEIR, by name and affiliation.
 - **Appendices.** The Recirculated Draft PEIR appendices includes all notices and other procedural documents pertinent to the Recirculated Draft PEIR, as well as all technical material prepared to support the analysis.

1.4 - Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this Recirculated Draft PEIR has referenced several technical studies, analyses, and previously certified environmental documentation. Information from the documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s). The relationship between the incorporated part of the referenced document and the Recirculated Draft PEIR has also been described. The documents and other sources that have been used in the preparation of this Recirculated Draft PEIR include but are not limited to:

- Southeast Development Area Specific Plan (Specific Plan) (2023)
- Fresno General Plan 2014
- Fresno Urban Water Management Plan (2021)
- Fresno Vehicle Miles Traveled Guidelines (2020)
- City of Fresno Active Transportation Plan (2016)

In accordance with CEQA Guidelines Section 15150(b), the Specific Plan, General Plan, and the above referenced documents and other sources used in the preparation of the Recirculated Draft PEIR are available for review at the City of Fresno Planning and Development Department at the address shown in Section 1.6 below, during regular business hours.

1.5 - Documents Prepared for the Proposed Project

The following technical studies and analyses were prepared for the proposed project:

- Air Quality, Greenhouse Gas Emissions, and Energy Analyses
- Biological Resources Assessment
- Cultural, Tribal Cultural, and Paleontological Resources Analyses
- Noise Analysis
- Traffic Impact Analysis
- Water Technical Report
- Recycled Water Technical Report
- Wastewater Technical Report
- Storm Drainage Technical Report

1.6 - Review of the Recirculated Draft Program EIR

Upon completion of the Recirculated Draft PEIR, the City of Fresno filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (PRC § 21161). Concurrent with the NOC, this Recirculated Draft PEIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Recirculated Draft PEIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Recirculated Draft PEIR, including the technical appendices, are available for review at these locations during business hours:

City of Fresno
Planning and Development Department
c/o Sophia Pagoulatos, Planning Manager
2600 Fresno Street
Third Floor, Room 3043
Fresno, California 93721

Fresno County Public Library, Central Branch
2420 Mariposa Street
Fresno, California 93721

Fresno County Public Library, Sunnyside Branch
5566 East Kings Canyon Road
Fresno, California 93727

The Recirculated Draft PEIR is also available for review at the following website:
www.fresno.gov/SEDA

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

City of Fresno
Planning and Development Department
Sophia Pagoulatos, Planning Manager
2600 Fresno Street, Room 3065
Fresno, California 93721
longrangeplanning@fresno.gov

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, the Lead Agency will evaluate all comments received on the Recirculated Draft PEIR and prepare written responses. Written responses to comments made by public agencies during the public review period will be prepared and made available for review by the commenting public agencies at least 10 days prior to the public hearing before the Fresno City Council on the project, at which time 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 project.

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CHAPTER 2: PROJECT DESCRIPTION

This Recirculated Draft Program Environmental Impact Report (Recirculated Draft PEIR) analyzes the potential environmental effects of the proposed Fresno Southeast Development Area (SEDA) Specific Plan Project (proposed project) in the City of Fresno (City). This section of the Recirculated Draft PEIR describes the key characteristics of the proposed project, including a general overview of the Specific Plan approval process; project location and planning area; and the characteristics of the proposed project, including required discretionary approvals. The following project description serves as the basis for the environmental analysis contained in this Recirculated Draft PEIR. The City is the California Environmental Quality Act (CEQA) Lead Agency and has final authority to approve the proposed project and certify the Recirculated Draft PEIR.

2.1 - Specific Plan Approval Process

The SEDA, previously known as the Southeast Growth Area (SEGA), was approved for incorporation into the City in 2006 by the Local Agency Formation Commission (LAFCo) with several provisions. The provisions included preparation of a Specific Plan and associated environmental assessment before any annexations of land to the City could be approved. The City initiated the process of preparing a Specific Plan for SEGA but put it aside amid the uncertainty of the recession in 2008. Concepts from the SEGA planning process were rolled into the current Fresno General Plan (General Plan) that was adopted in 2014. The General Plan includes the SEDA Plan Area (Plan Area) as one of several growth areas.

Located in Growth Area II, SEDA was intended to be developed once other infill initiatives were given time to gain momentum. For example, only about one-third of SEDA's residential capacity (approximately 15,000 dwelling units out of a total 45,000 dwelling unit capacity) is included in the General Plan's buildout numbers, which accommodates the City's anticipated 2035 population. It is assumed that the remaining residential capacity of 30,000 dwelling units will not be developed until after 2035. While there is still ample residential capacity within the current city limits and in Growth Area I (which includes the Southwest Fresno and the West Area Neighborhoods Specific Plan areas), there is a sense of urgency about the current housing crisis and the City's ability to provide housing for the existing population and its natural growth as well as the unanticipated in-migration occurring at this time.

2.1.1 - Notice of Preparation and Public Scoping Meeting

The Notice of Preparation (NOP) of the Recirculated Draft PEIR for the proposed project was circulated from February 22, 2022, to March 25, 2022, to trustee and responsible agencies, the State Clearinghouse (SCH), and the public to share information about the proposed project and receive input on the scope of the environmental issues to be addressed in the Recirculated Draft PEIR. A Scoping Meeting was held virtually, due to the COVID-19 restrictions, on March 3, 2022. Input obtained through the scoping process was incorporated into the environmental analysis and planning process.

2.1.2 - Public Outreach

In an effort to offer multiple opportunities for engagement with the public and stakeholders, the City hosted three in-person workshops on May 3, 17, and 31, 2022, to further facilitate discussion on the proposed project. City staff were also available to attend pop-up events, neighborhood meetings, religious gatherings, etc. Additionally, the City has maintained a web page devoted to informing the public about, and encouraging participation in, the Specific Plan process. The website includes public notices, meeting materials, presentations resources and reports, contact information, and other background materials. The web page is located at: www.fresno.gov/SEDA.

2.1.3 - Contents of the Specific Plan

The Specific Plan is organized into nine chapters. A set of objectives and implementing policies are provided in each relevant section. The Specific Plan's chapters are as follows:

1. **Introduction.** This section provides an overview of the vision, opportunities, and challenges for development of the Plan Area, the existing conditions and growth expected in the Plan Area, and the implementation of the proposed project.
2. **Urban Form.** This chapter contains a series of exhibits that showcase the Land Use vision and a description of the Land Use Districts that make up the map. The section also contains specific objectives and policies related to urban form.
3. **Housing Choice and Affordability.** This chapter discusses the availability of housing in the City and the challenges associated with providing housing affordability. This chapter includes SEDA's household demographics and discusses the diverse range of housing types to be developed as a result of the Specific Plan, from medium- and higher-density multi-family types to small- and medium-lot single-family options. This section also includes objectives and policies that reflect the priorities and vision for housing within the Plan Area.
4. **Open Space, Schools, and Public Facilities.** This chapter outlines the proposed project's plan to provide a high-quality, accessible open space system; provides standards for the location, accessibility, and design of key public facilities; and details design guidelines and standards for park development. This chapter also includes objectives and policies that define the variety of open spaces and public spaces envisioned for the Plan Area.
5. **Community Farming and Agricultural.** This chapter provides the proposed project's policy framework to balance the needs of urban development with the need to conserve the economic, cultural, and historic value of agricultural land in the City's metropolitan area. In addition to including the policies and objectives for agricultural uses in the Plan Area, this chapter also provides descriptions of the different types of community farming and agriculture uses.
6. **Greenhouse Gas Reduction and Conservation.** This chapter describes the objectives and policies that are aimed at reducing greenhouse gases (GHGs), conserving water and energy, and diverting waste, which together reduce GHG emissions and conserve resources.
7. **Economic Opportunity.** This chapter describes the City's commitment to environmentally responsible economic opportunity that creates shared prosperity. This chapter includes the

goals of the proposed project to build on the City's current strengths and to create more opportunity for current and future residents and businesses. The objectives and policies of this chapter serve to identify economic opportunities presented by the design and policies of the Plan Area.

8. **Cultural and Historical Resources.** This chapter discusses the policies that support preservation of the historically significant buildings, districts, sites, landscapes, and other features that reveal the unique identity of the City and contribute to its sense of place.
9. **Implementation.** This section outlines the actions, studies, plans, and procedures that will assist in implementing the Specific Plan.

2.1.4 - Additional Project Components

The proposed project sets a vision for how the Plan Area would develop over time and is supported by several other documents and plans in addition to the Specific Plan. The following components are part of the planning process and will be necessary prior to construction of any subsequent development under the Specific Plan:

Phasing Plan

The Phasing Plan defines the required sequence of development for various areas within SEDA.

Infrastructure Financing Plan

The proposed project would include a Public Facilities Financing Plan to present a strategy and funding options for backbone infrastructure and public facilities, including roads, sewer, water, storm drainage, parks, and other public facilities. Backbone infrastructure and public facilities required for development would be funded through a combination of public and private funding. The Public Facilities Financing Plan has been developed through a review of the SEDA Specific Plan, infrastructure studies, and coordination with the City.

Annexation

The proposed project requires annexation of Fresno County (County) lands into the City. LAFCo is a Responsible Agency under CEQA for the proposed project. LAFCo will consider the analysis contained in this EIR when considering the annexation of the project site into the City. Annexation will be strategic and proactive to facilitate infrastructure development by the City.

General Plan Amendment and Development Code Change

The proposed project would also amend the General Plan and Development Code to implement the land use and zoning described in the proposed project.

2.2 - Existing

2.2.1 - Regional Location

The City is located in Fresno County, California, within the San Joaquin Valley. The City is located approximately 200 miles north of Los Angeles and 170 miles south of Sacramento. The City is located

on the State Route (SR) 99 corridor and bounded by Madera County to the north, the City of Clovis to the northeast, and unincorporated land and communities to the east, south, and west. The City encompasses approximately 115.18 square miles and has a population of approximately 542,000 people.¹

2.2.2 - Plan Area Location

The location of the nearly 9,000-acre Plan Area is in the southeast portion of the City, in Fresno County, California as shown in Exhibit 2-1. The Plan Area is bounded on the north by the Gould Canal, on the east by McCall and Highland Avenues, on the south by Jensen and North Avenues, and on the west by Locan, Temperance, and Minnewawa Avenues.

2.2.3 - Existing Uses

Agricultural Uses

The predominant existing use in the Plan Area (approximately 5,000 acres) is agriculture, primarily vineyards, orchards, and vegetable farms. The average parcel size is approximately 25 acres and is typically used for growing a range of crops. The Plan Area also contains agriculture-related and commercial operations, such as plant nurseries, wineries, and other various agricultural businesses.

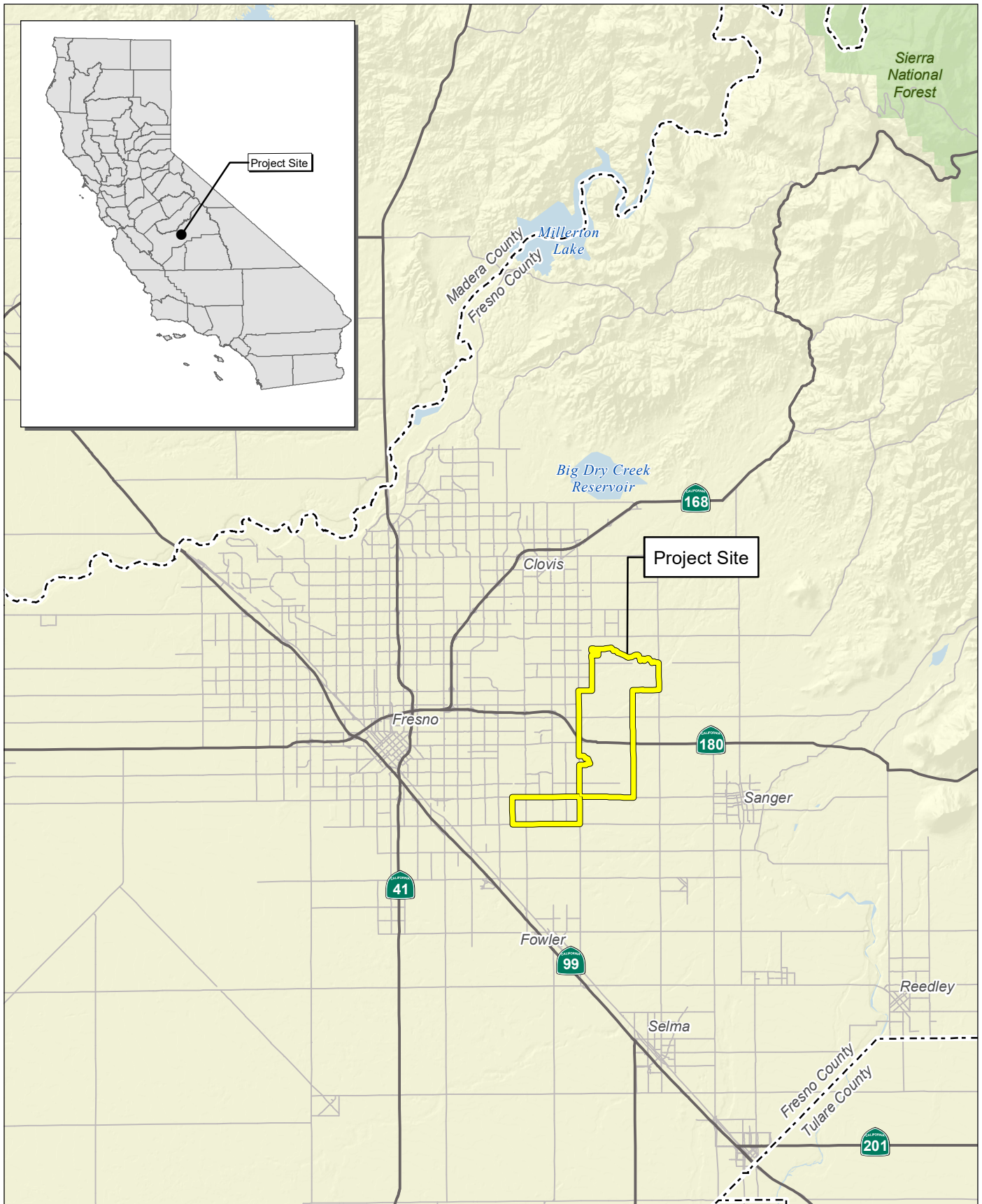
Rural Residential Uses

The second most predominant existing use is rural residential development, which is primarily concentrated in the area between SR-180 and McKinley Avenue but also scattered throughout the Plan Area. Currently, there are 700 residential parcels (approximately 2.6 acres on average) within the Plan Area, which accommodate 713 single-family homes and 13 mobile homes.

Institutional and Public Facilities Uses

A school, churches, and other public uses also occupy the Plan Area. The Plan Area includes land that falls within both the Sanger and Clovis Unified School Districts (Sanger Unified and Clovis Unified), with Fowler and Fresno Unified School Districts bordering the Plan Area. Presently, the Lone Star Elementary School, located in the southern portion of the Plan Area, is the only school in the Plan Area. However, Clovis Unified is constructing an educational center for middle and high school students in the northern portion of the Plan Area on a site along the Clinton Avenue alignment between Leonard and Highland Avenues, with phased opening expected in 2025.

¹ United States Census Bureau. Fresno City, California QuickFacts. Website: <https://www.census.gov/quickfacts/fresnocitycalifornia>. Accessed December 12, 2024.



Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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Exhibit 2-1 Regional Location Map

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Natural Features

The Plan Area is traversed by several constructed drainage features and natural waterways: Gould Canal, Redbank Slough, Dry Creek Canal, Mill Ditch, Fancher Creek Canal, and Briggs Canal. Typically, canals in the Plan Area are mostly unvegetated and the banks are reinforced with rock or broken asphalt and concrete, with some portions fully concrete-lined. In addition, there are several small ponds and numerous lateral irrigation ditches that deliver water from the canals to agricultural fields.

2.2.4 - Existing General Plan Designations

According to the City's General Plan, the existing Plan Area contains the following General Plan designations:

- Residential—Low Density (1-3.5 DU/acre)
- Residential—Medium Density (5.0–12 DU/acre)
- Residential—Urban Neighborhood (16–30 DU/acre)
- Employment—Mixed Use
- Employment—Office
- Public Facilities
- Open Space
- Buffer

2.2.5 - Circulation and Access

The current roadway network is mainly comprised of two-lane county roads at 0.5-mile intervals, interspersed with local streets. Major roadway access corridors include Temperance, Clovis, and Jensen Avenues. Each of these major roadway access corridors accommodates four lanes of traffic with a central turning lane. SR-180 has been extended eastward along the old Kings Canyon alignment from Temperance Avenue to Academy Avenue in Sanger. This route extension provides an east–west connection to SR-99, serving commuters and the movement of agricultural goods from eastern portion of the County. Temperance Avenue has been expanded to four lanes where needed to serve new development.

2.3 - Project Characteristics

2.3.1 - Proposed Project

The proposed project is a Specific Plan for the SEDA that would provide for increased density and accelerate housing production throughout the Plan Area. The proposed project would offer flexibility in meeting the evolving needs of households in the region through a multimodal transportation network and diverse housing types and affordability levels. It has the potential to accommodate approximately 45,000 homes and 37,000 jobs within the nearly 9,000-acre planning area by the year 2050. The proposed project is framed with three interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed project would link a series of complete communities and mixed-use centers with a multimodal transportation network. Additionally, the proposed project

would include major transit lines, mixed-use centers, diverse residential districts, employment districts, open space, agriculture, and green infrastructure.

2.3.2 - Proposed Specific Plan Buildout

The Land Use Map defines the physical extent of Land Use Districts, as well as major roadway alignments which constitute the buildout of the proposed project as shown in Exhibit 2-2. It also identifies potential locations for certain open space and institutional features. These locations, as well as certain roadway configurations and specific transit alignments, are more closely specified in the Infrastructure Plan. The implementation of the Land Use Map is administered through the application of Land Use District Standards and Street and Circulation Standards. The proposed project land use categories by district are shown in Table 2-1 along with the total proposed acreage. Descriptions of each of the associated land use categories are further discussed below.

Table 2-1: Proposed Specific Plan Acreages

Land Use	Proposed Plan Acres	Percentages
Mixed-Use Land Uses		
Regional Town Center	310	3.5%
Community Town Center	290	3.3%
Neighborhood Town Center	520	5.9%
Mixed-Use Land Uses Total	1,120	12.7%
Residential Land Uses		
Mixed Residential	1,090	12.4%
Neighborhood Residential	1,520	17.3%
Rural Residential	2,160	24.5%
Rural Cluster Residential	810	9.2%
Residential Land Uses Total	5,580	63.4%
Employment Land Uses		
Office Center	160	1.8%
Flexible Research and Development	1,380	15.7%
Institutional	280	3.2%
Employment Land Uses Total	1,820	20.7%
Other Land Uses		
Flood Control Basin	280	3.2%
Total	8,800	100%
Source: City of Fresno 2022.		

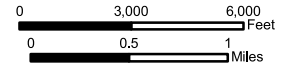
SEDA PROPOSED LAND USE MAP

Southeast Development Area

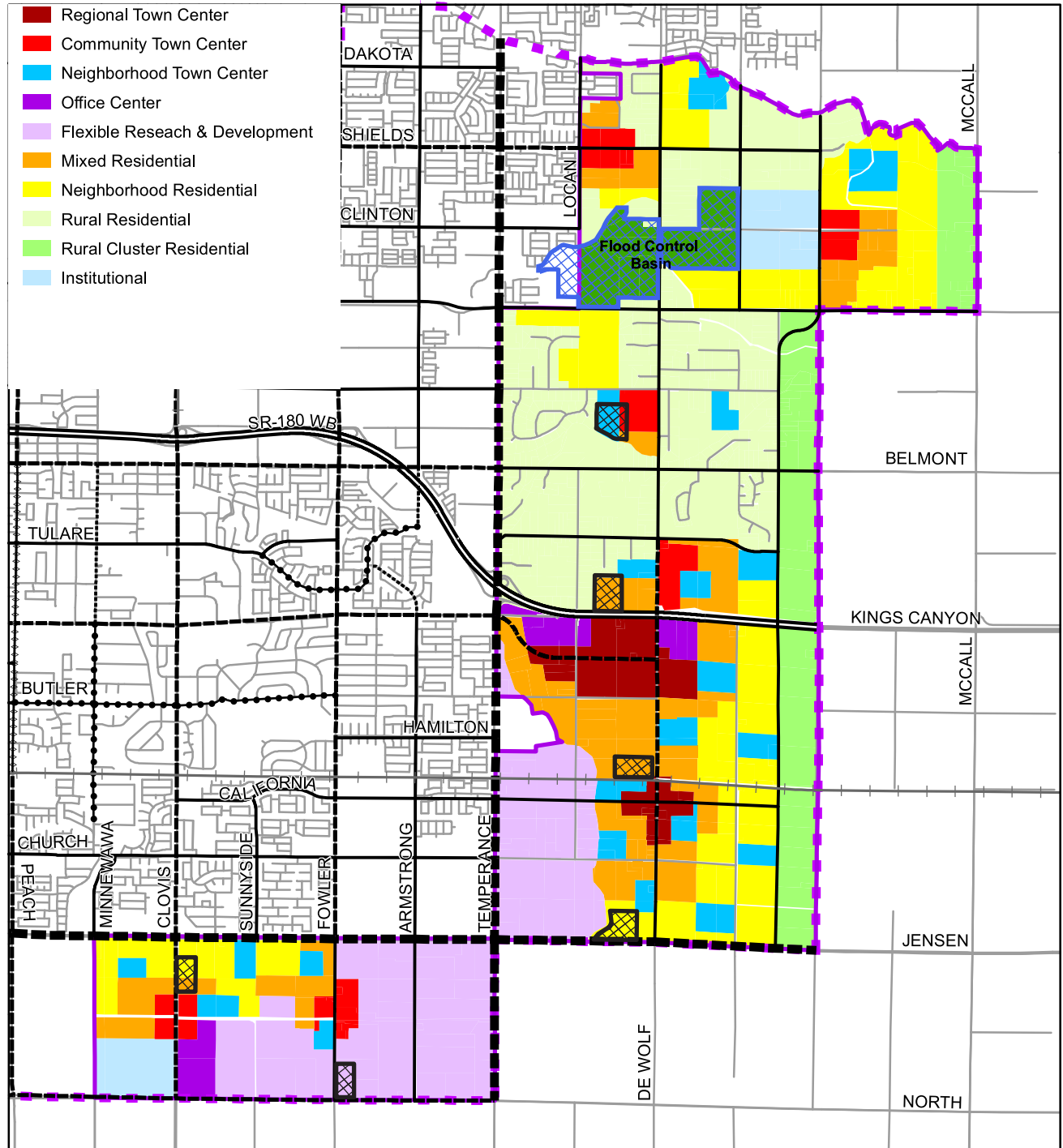
- Freeway
- Expressway
- Scenic Expressway
- Super Arterial
- Arterial
- Scenic Arterial
- Scenic Drive
- Collector
- Scenic Collector
- Southeast Development Area
- Fresno Sphere of Influence
- Major & Local Roads
- Railroads

FLOOD BASINS

- Existing
- Proposed SEDA



Source: City of Fresno, SEDA Illustrative Plan derived from community and stakeholder meetings.



Source: City of Fresno, SEDA Regulating Districts, 07/2023. Fresno Metropolitan Flood Control District, 8/22/2023.



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Mixed-Use Land Uses

The proposed project is based upon a hierarchy of walkable, mixed-use Town Centers supported by a multimodal transportation network. Town Centers, which would serve as commercial and civic focal points for the Plan Area, are designed to include a rich mixture of uses with varying intensities. Town Centers are human-scaled and defined by quality design features. They incorporate living and working opportunities with entertainment, cultural activities, and shops serving the daily needs of residents and employees. There are three types of Town Centers, including Regional Town Centers, Community Town Centers, and Neighborhood Town Centers.

Regional Town Centers

The Regional Town Center is at the top of the mixed-use center hierarchy in the Plan Area. The commercial uses in Regional Town Centers would serve approximately 40,000 to 60,000 households across the Plan Area and within the surrounding communities outside of the Plan Area. The Regional Town Center features region-serving retail and office activity, as well as medium- and higher-density housing. The Regional Town Center will be located south of SR-180 along the realigned Kings Canyon Boulevard. The center will be focused around one or more major transit stations linked to the regional rapid transit network. The Regional Town Center will be given priority as the primary mixed-use employment center, retail destination, and host to major cultural attractions.

Community Town Centers

Seven Community Town Centers would be dispersed across the Plan Area and would provide commercial, civic, and other services to meet the needs of Community Town Center residents and employees, as well as those of surrounding neighborhoods. Community Town Center services, including grocery stores, support between 5,000 and 10,000 households both in the Plan Area and the surrounding communities outside of the Plan Area. Community Town Centers feature a variety of medium-density housing options. Some Community Town Centers are focused on major rapid transit stations.

Neighborhood Town Centers

Neighborhood Town Centers would be dispersed throughout the Plan Area and would serve as focal points of adjacent residential areas. Neighborhood Centers include employment and residential uses and would provide access to civic services and amenities, including elementary schools, local parks, community gardens, and other services. Each Neighborhood Town Center would serve approximately 1,500 to 2,000 households in the Plan Area and surrounding communities outside of the Plan Area and include a range of housing options.

Residential Land Uses

The Plan Area includes a rich and complete fabric of residential communities that support mixed-use centers and include a variety of housing types and affordability levels. The proposed project would distribute a variety of housing types across the Plan Area to accommodate current and future housing needs. The range of housing types and densities throughout the communities would provide flexibility to meet the evolving needs of households in the region. There are four types of residential

land uses, including Mixed Residential, Neighborhood Residential, Rural Residential, and Rural Cluster Residential.

Mixed Residential

Mixed Residential districts support the Regional and Community Town Centers with a variety of medium- and higher-density housing, including a diverse mix of attached and detached single-family and multi-family homes. The average gross density within the Mixed Residential district will be approximately 20–30 units per acre. Residential buildings range in net density from 8–60 units per acre.

Neighborhood Residential

Neighborhood Residential districts surround Neighborhood Town Centers and support the retail, employment, and other services provided throughout the Plan Area. Neighborhood Residential areas include a variety of detached and attached single-family housing types, as well as multi-family housing options. The average gross density within the Neighborhood Residential district will be approximately 20 units per acre. Residential buildings range in net density from 6–30 units per acre.

Rural Residential

There are approximately 1,536 acres in the Plan Area currently developed as very-low-density rural residential homes and ranchettes. The proposed project designates these homes as Rural Residential. Upon annexation into the City, the existing land use on these parcels will remain protected under the Annexation Overlay Ordinance as adopted in ordinance 2015-39 on January 9, 2016, and codified in Section 15-1606 in the Fresno Municipal Code. Changes in land use would be subject to the process and regulations set forth in the SEDA Development Code Update.

Rural Cluster Residential

Rural Cluster districts, located along the eastern edge of the Plan Area, would concentrate residential lots within a small, clustered area of a larger parcel or groups of parcels. This clustering of homes preserves the continuity and viability surrounding land for agricultural uses and open space conservation. Rural Cluster districts serve as a transitional buffer between more intense urban uses within the Plan Area and the commercial agricultural operations outside of the Plan Area. The average gross density of Rural Cluster districts is 0.1–0.5 units per acre. A district may include 20–80 acres, with single-family homes clustered on lots 1 acre or smaller in a designated cluster.

Employment Land Uses

The proposed project would provide opportunities to attract diverse, high-quality employers and job opportunities while meeting the environmental challenges associated with growth in the City and the Central Valley. Many jobs would be located within a short distance to amenities in Regional and Community Town Centers, Office Centers, and in Flexible Research and Development districts. In these locations, employment opportunities can be closely linked to regional transit service and trail systems. The proposed project would put a significant portion of Plan Area residents within walking distance of major employment areas and high-capacity transit services that link to regional employment centers, including Downtown Fresno. Reducing reliance on automobiles for work trips

would significantly reduce GHG emissions, playing a significant role in meeting the proposed project's sustainability goals.

Office Center

Office Center districts are located adjacent to Regional and Community Centers or along regionally significant transportation corridors (e.g., SR-180, Kings Canyon Boulevard, Clovis Avenue). Office Centers accommodate professional offices and compatible commercial uses such as restaurants, coffee shops, cafés, banks, and book shops. Some residential uses could be conditionally permitted in Office Centers.

Flexible Research and Development

Flexible Research and Development districts would be primarily located west of the Briggs Canal and/or south of Jensen Avenue and are intended for uses such as research and development, light manufacturing, product testing centers, and office development. The area may also include compatible commercial uses such as restaurants, coffee shops, cafés, printing and publishing, dry cleaners, and other supporting businesses. Access to regional transportation corridors (both road and rail) is critical. Residential uses are not allowed in Flexible Research and Development areas.

Institutional Uses

Institutional Land Use Districts would include the planned Clovis Unified School District Education Center and the existing Sanger Unified School District Education Center. The Institutional Land Use Districts would not include new SEDA high schools, middle schools, or elementary schools and other civic uses in the SEDA Plan. These uses are integrated into Neighborhood Town Centers and other districts.

2.3.3 - Circulation and Access

The proposed project's multimodal circulation network would include a hierarchy of transportation options, ensuring that residents would have realistic choices for their daily travel needs. The proposed project would be served by high-capacity public transit and safe bicycle and pedestrian routes. Arterials, collectors, and local streets would provide safe, convenient access for local trips. Exhibit 2-3 shows the proposed major street circulation network. Non-auto options are integrated throughout the plan, with dedicated bicycle/pedestrian trails and a network of bicycle-priority "Bicycle Boulevards."

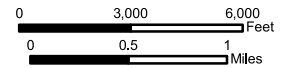
Transit Service

Transit Corridors and Arterials with high-capacity public transit would serve major town centers, while collectors and local streets would provide safe, convenient options for local trips. Transit service will be provided to and within the Plan Area via regional transit connections along Kings Canyon Boulevard. The Kings Canyon high frequency Q Bus Route would extend into the Regional Town Center and eventually terminate service in the Community Town Center located on South DeWolf Avenue. Local service would be provided along primary internal circulation corridors.

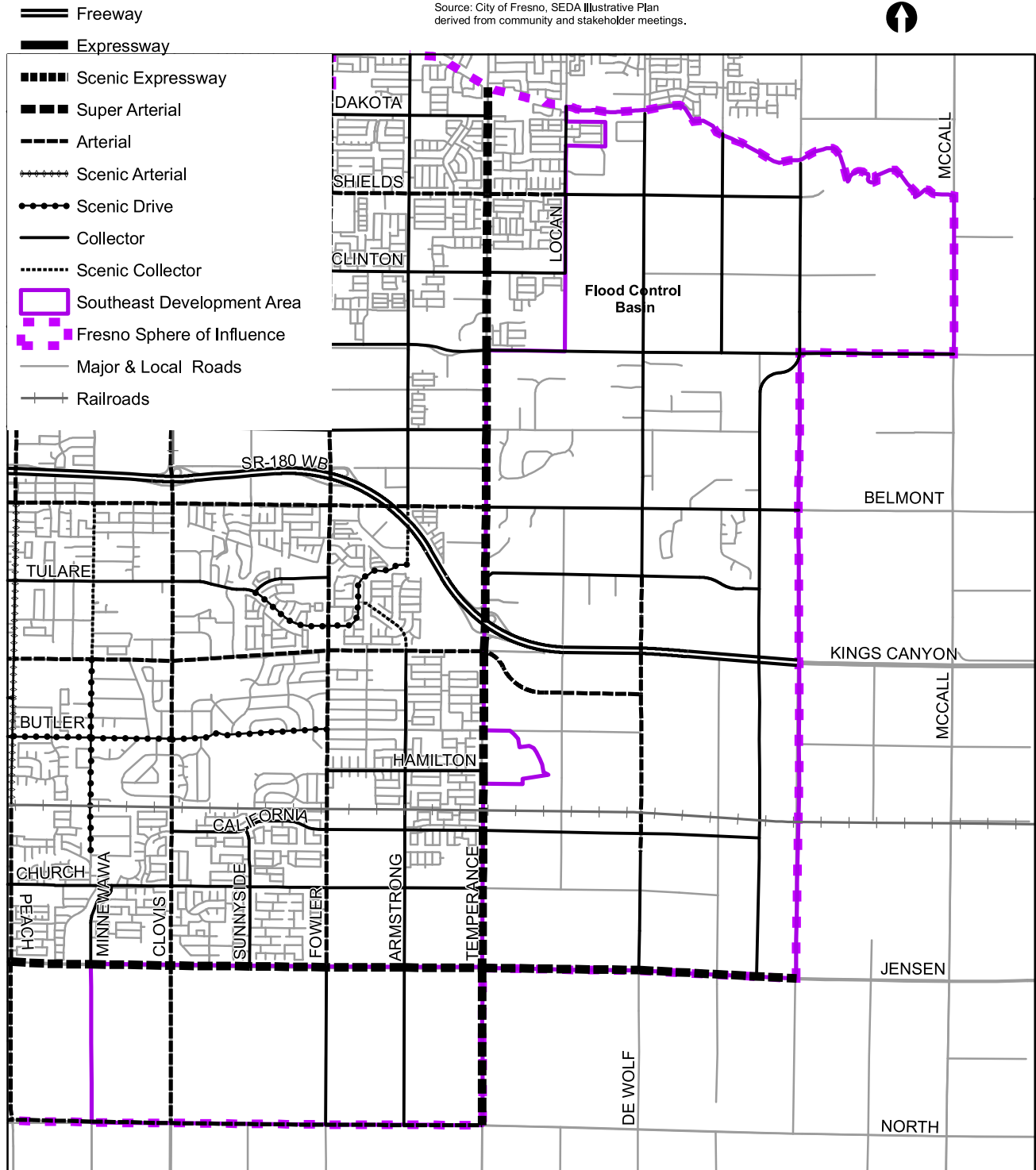
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PROPOSED MAJOR STREET CIRCULATION

Southeast Development Area



Source: City of Fresno, SEDA Illustrative Plan derived from community and stakeholder meetings.



Source: City of Fresno

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Exhibit 2-3 Proposed Major Street Circulation Network

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Bicycle and Pedestrian Trails

A network of pedestrian and bicycle routes, including dedicated trails and multi-purpose paths, would serve work, school, and recreational trips. This extensive non-auto travel network would be coordinated with existing and proposed regional trails. Trail systems would connect regional and sub-regional destinations for bicyclists, pedestrians, and equestrians (where appropriate). Multiuse trails would be parallel to canals and other east–west open space networks within the Plan Area. There would also be a network of bicycle lanes reflective of the Fresno Active Transportation Plan (ATP). This would consist of at least Class II Bike Lanes and other bicycle facilities as described in the California Department of Transportation (Caltrans) Bikeway Classification Guide.

Complete Streets

The Plan Area would be served by a network of Complete Streets as defined by the City’s Complete Streets Policy adopted in 2019. A Complete Street is defined in the policy as a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users—including bicyclists, pedestrians, transit vehicles, trucks, and motorists—appropriate to the function and context of the facility while connecting to a larger transportation network.

2.3.4 - Open Spaces, Agriculture, and Green Infrastructure

Parks and Open Spaces

The proposed project’s open space system would provide places for active and passive recreation and includes corridors for trails and paths that would connect many areas of the Plan Area.

Sustainable Infrastructure

Sustainable infrastructure components capture and retain runoff, then treat the runoff by allowing it to move slowly through natural systems, such as constructed wetlands and rock filters. Stormwater management systems help reduce impacts on the environment. Regional infrastructure systems can also be designed as visual and active amenities for residents in the Plan Area.

Community Farming and Agriculture

The proposed project would integrate community-scale farming and agriculture into the urban fabric. Agricultural activities would range from neighborhood gardens to agricultural education and from small farming operations in green belts to those on the Rural Cluster edge.

2.4 - Project Objectives

The objectives of the proposed project are to:

Quantified Objectives:

- Accommodate between 40,000 and 45,000 dwelling units of varying types, sizes, densities, and affordability levels.
- Accommodate between 30,000 and 37,000 jobs.

Fiscal Responsibility:

- Provide self-financing for the development and ongoing maintenance of the SEDA that does not reduce City of Fresno resources dedicated to other areas of the City or burden Fresno residents outside of the SEDA.
- Holistically coordinate infrastructure to integrate efficiencies that piecemeal planning cannot.
- Invest in resource conserving techniques for stormwater systems, water supply, and trail and open space networks to save on infrastructure and mitigation costs.

Social Equity:

- Promote health by reducing harmful emissions from cars and industry.
- Foster healthy physical activity and community interaction by providing easy, safe walking and bicycle access to parks, schools, and retail centers.
- Sustain the diversity of Fresno's population by providing a wide variety of housing choices and business opportunities.
- Respect the major economic and cultural role of agriculture in the Central Valley by accommodating growth within the confines of a smaller urban footprint and directly integrating community-scale agriculture into the design of community centers, neighborhoods, and open spaces.

Environmental Sustainability:

- Emphasize the efficient use of energy, water, and other resources in SEDA design and policies. Strive to produce a self-mitigating plan that deeply reduces the environmental impacts of growth and can sustain and even serve to improve or repair natural systems.
- Reduce energy and water consumption through more efficient land use patterns, smarter building standards, and environmentally sensitive infrastructure to help Fresno meet standards for greenhouse gas emissions, and well as air pollution and water quality.

Housing Choice:

- Offer a variety of housing choices to a mix of incomes, age groups, and lifestyles.
- Ensure new housing units are affordable to households with varying levels of income through covenants and deed-restrictions or other affordability mechanisms.

High Quality Transit Service:

- Provide convenient and frequent transit service to connect SEDA's town centers to jobs and housing inside the Plan Area and across the region.

Walkable Neighborhoods:

- Provide for nearly all homes to be located within walking distance of a Neighborhood Town Center with an elementary school, recreation areas, community gardens, and small shops.

Parks, Open Space, and Trails:

- Create a variety of natural open spaces and parks for recreation in all areas of the SEDA.
- Create trail systems and bicycle paths that make traveling without a car safe and convenient.
- Ensure that schools and major town centers can be reached safely with or without a car.

Mixed Use Town Centers:

- Mix shopping, housing, and jobs in vibrant Regional Town Centers and Community Town Centers that are easily accessible to most residents via a short walk, bike ride, drive, or transit trip.

Innovative Employment Areas:

- Attract opportunities in green technology and energy systems, ag-related industries, modular housing, and other emerging fields to provide jobs for Fresno residents.

Community Farming and Agriculture:

- Integrate small farms, community gardens, and farmers' markets into neighborhoods, schools, and town centers.
- Create a buffer that includes rural homes, organic farming, and open spaces to serve as a transition between the SEDA and commercial agriculture to the east.

Implementation:

- Develop the SEDA in an organized and phased manner based on housing needs, infrastructure availability, and minimization of impacts.
- Ensure amenities and infrastructure provision for each new phase prior to commencement of construction.

2.5 - Intended Uses of this Draft Program EIR

This Recirculated Draft PEIR has been prepared by the City to assess the potential environmental impacts that may arise in connection with actions related to implementation of the proposed project. Pursuant to CEQA Guidelines Section 15367, the City is the Lead Agency for the proposed project and has discretionary authority over the proposed project and project approvals. The Recirculated Draft PEIR is intended to address all public infrastructure improvements and all future developments that are within the parameters of the proposed project. This Recirculated Draft PEIR is intended to evaluate the environmental impacts of the Fresno SEDA Specific Plan to the greatest extent possible and is used as the primary environmental document to evaluate subsequent planning and permitting actions associated with projects in the planning area. Once certified, the City intends for this analysis to be used consistent with all available streamlining provisions in CEQA, including, but not limited to, Guidelines Section 15162-15168, 15182 and 15183.

2.5.1 - Discretionary and Ministerial Actions

The proposed project is a policy-level document and does not include any specific development proposals and may not fully evaluate the impacts of other future specific, individual development that may be approved under implementation of the proposed project. The Planning Commission and other decision-making bodies would review the proposed project and make recommendations to City Council, who has approval authority for adoption of the SEDA Plan and related actions. Future projects may be tiered off this Recirculated Draft PEIR or be found consistent with this Recirculated Draft PEIR pursuant to one or more of CEQA's streamlining processes and may require additional, project-specific environmental analysis to secure the necessary discretionary development permits. Subsequent projects will be reviewed by the City for consistency with the General Plan, Specific Plan, Zoning Ordinance, and this Recirculated Draft PEIR, and subsequent project-level environmental review will be conducted if required by CEQA.

Adoption of the proposed project would be enacted by a resolution of the City Council for the following discretionary actions:

- Adoption of the Fresno Southeast Development Area Specific Plan.
- Amendment of the Fresno General Plan, including amendments to the Land Use Map and text.
- Approval of Annexation (this would probably occur after initial adoption of the Specific Plan and would probably occur in phases—unlikely that it will be part of the plan adoption actions.)

Adoption of the proposed project would be enacted by a City ordinance for the following discretionary actions:

- Rezoning of property for consistency with the General Plan Amendment and SEDA Specific Plan.
- Text Amendment of the Development Code to incorporate new zone districts and other provisions called for in the SEDA Plan.

As discussed further under Section 2.4.2, Responsible and Trustee Agencies, other agencies may be consulted during the adoption process, however, their approval is not required for adoption of the proposed project. Any subsequent development under the proposed project may require approval of State, federal and Responsible Trustee Agencies that may rely on the program-level analysis in this Recirculated Draft PEIR.

2.5.2 - Responsible and Trustee Agencies

A number of other agencies in addition to the City will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. For the purposes of CEQA, the term “Responsible Agency” includes all public agencies other than the Lead Agency that have discretionary approval power over the proposed project. Discretionary approval may include such actions as issuance of a permit, authorization, or easement needed to complete some aspect of

the proposed project. This Recirculated Draft PEIR will provide environmental information to these agencies and other public agencies, which may be coordinated with other agencies, as part of project implementation. These agencies may include, but are not limited to, the following:

- California Department of Transportation
- California State Water Resources Control Board (State Water Board)
- California Department of Fish and Wildlife (CDFW)
- Central Valley Regional Water Quality Control Board (Central Valley RWQCB)
- Fresno Local Agency Formation Commission
- San Joaquin Valley Air Pollution Control District (Valley Air District)
- Fresno Metropolitan Flood Control District
- Fresno Irrigation District
- County of Fresno

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CHAPTER 3: ENVIRONMENTAL IMPACT ANALYSIS

Organization of Issue Areas

This Recirculated Draft Program Environmental Impact Report (Recirculated Draft PEIR) provides analysis of impacts for those environmental topics where it was determined in the Notice of Preparation (NOP), or through subsequent analysis, that the proposed project would result in “potentially significant impacts.” Sections 3.1 through 3.19 discuss the environmental impacts that may result with approval and implementation of the proposed project.

Issues Addressed in this Recirculated Draft Program EIR

The following environmental issues are addressed in Chapter 3:

- Aesthetics, Light, and Glare
- Agricultural Resources and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Wildfire

Level of Significance

Determining the severity of potential project impacts is fundamental to achieving the objectives of the California Environmental Quality Act (CEQA). CEQA Guidelines Section 15091 requires that decision-makers mitigate, as completely as is feasible, the significant impacts identified in the Recirculated Draft PEIR. If the Recirculated Draft PEIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision-makers, in approving a proposed project, to adopt a statement of overriding considerations that explains why the benefits of the proposed project outweigh the adverse environmental consequences identified in the Recirculated Draft PEIR.

The level of significance for each impact examined in this Recirculated Draft PEIR was determined by considering the predicted magnitude of the impact against the applicable threshold. Thresholds were developed using criteria from the CEQA Guidelines and checklist; State, federal, and local regulatory schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions. The level of significance for each impact can be determined as “No impact,” “Less than significant impact,” “Less than significant with mitigation incorporated,” or “Significant and unavoidable impact.” A “No impact” determination means the proposed project would not affect this impact area at all. A “Less than significant impact” determination means that the proposed project may have a minor effect on this impact area, but it

would not exceed a threshold requiring mitigation. A “Less than significant with mitigation incorporated” determination means that the proposed project could potentially have a significant impact, but there are measures that can be put in place to reduce the impact to a level that is not considered significant. A “Significant and unavoidable impact” determination means that the proposed project exceeds thresholds requiring mitigation, but there is no feasible mitigation available that would reduce the impact to a level that is less than significant.

Impact Analysis and Mitigation Measure Format

The format adopted in this Recirculated Draft PEIR to present the evaluation of impacts is described and illustrated below.

Summary Heading of Impact

Impact AES-1: An impact summary heading appears immediately preceding the impact description (Summary Heading of Impact in this example). The impact number identifies the section of the report (AES for Aesthetics, Light, and Glare in this example) and the sequential order of the impact (1 in this example) within that section. To the right of the impact number is the impact statement, which identifies the potential impact.

Impact Analysis

A narrative analysis follows the impact statement.

Level of Significance Before Mitigation

This section identifies the level of significance of the impact before any mitigation is proposed.

Mitigation Measures

In some cases, following the impact discussion, reference is made to State and federal regulations and agency policies that would fully or partially mitigate the impact. In addition, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited.

Project-specific mitigation measures, beyond those contained in other documents, are set off with a summary heading and described using the format presented below:

MM AES-1 Project-specific mitigation is identified that would reduce the impact to the lowest degree feasible. The mitigation number links the particular mitigation to the impact it is associated with (**AES-1** in this example); mitigation measures are numbered sequentially.

Level of Significance After Mitigation

This section identifies the resulting level of significance of the impact following mitigation.

Abbreviations used in the mitigation measure numbering are:

Code	Environmental Issue
AES	Aesthetics, Light, and Glare
AG	Agricultural Resources and Forest Resources
AIR	Air Quality
BIO	Biological Resources
CUL	Cultural Resources and Tribal Cultural Resources
ENER	Energy
GEO	Geology, Soils, and Seismicity
GHG	Greenhouse Gas Emissions
HAZ	Hazards and Hazardous Materials
HYD	Hydrology and Water Quality
LAND	Land Use and Planning
MIN	Mineral Resources
NOI	Noise
POP	Population and Housing
PUB	Public Services
REC	Recreation
TRANS	Transportation and Traffic
UTIL	Utilities and Service Systems
WILD	Wildfire

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3.1 - Aesthetics, Light, and Glare

3.1.1 - Introduction

This section describes the existing aesthetics, light, and glare conditions in the Plan Area, as well as the relevant regulatory framework. This section also evaluates the possible impacts related to aesthetics that could result from implementation of the proposed project. Descriptions and analysis in this section are based, in part, on the Fresno General Plan (General Plan), Fresno Southeast Development Area (SEDA) Specific Plan (Specific Plan), aerial photos, and the California Department of Transportation (Caltrans) List of Eligible and Officially Designated State Scenic Highways.

As further discussed in Chapter 1, Introduction, three public comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to aesthetics:

- Requests the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the Planning Area.
- Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impact.
- Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.1.2 - Environmental Setting

Visual Character

City of Fresno

The visual quality and character of the City of Fresno (City) is characterized by various aesthetic attributes, generally located within the Downtown area, suburban and rural residential areas, industrial areas, agricultural areas, and along corridors of major thoroughfares. The Downtown area is the urban center of the City, comprised of high-rise buildings and a variety of land uses. Downtown buildings include mixed-use buildings, theaters, civic/institutional buildings, and industrial warehouses, many of which have historic design elements. The suburbs are characterized by low-rise neighborhood buildings that are primarily dominated by single-family residential uses. The primary industrial areas within the City include the areas south of Downtown, along State Route (SR) 99, and adjacent to the Fresno-Yosemite International Airport, which are characterized by low-rise buildings with manufacturing, processing, and warehouse uses.

Plan Area

The Plan Area is located in the southeastern portion of the City, which is primarily surrounded by agricultural land and single-family residential units. The primary crops in the Plan Area are vineyards, orchards, and vegetables. The Plan Area also contains agriculture-related and commercial operations such as plant nurseries, wineries, and other various agricultural businesses. The second most predominant existing use is rural residential development. There are several constructed drainage features and natural waterways throughout the Plan Area, including Gould Canal, Redbank Slough,

Dry Creek Canal, Mill Ditch, Fancher Creek Canal, and Briggs Canal. Some canals in the Plan Area are mostly unvegetated and the banks are enforced with rock or broken asphalt and concrete, with some portions fully concrete-lined.

Scenic Resources and Corridors

Scenic resources are defined as natural or man-made elements that contribute to an area's scenic value and are visually pleasing. Scenic resources include landforms, vegetation, water, or adjacent scenery.

Scenic corridors are channels that facilitate movement (primarily by automobile, transit, bicycle, or foot) from one location to another with expansive views of natural landscapes and visually attractive man-made development. Scenic corridors analyzed under the California Environmental Quality Act (CEQA) typically include State-designated Scenic Highways.

City of Fresno

Scenic resources within the City include landscaped open space areas such as parks and golf courses; areas along the San Joaquin River due to varying topography; and the river bluffs, which provide a unique geological feature in the San Joaquin Valley. Man-made scenic resources include historic buildings in Downtown Fresno, which provide a unique skyline. Corridors are developed with low-rise commercial, residential, and industrial uses that are located along major thoroughfares such as Herndon Avenue, Shaw Avenue, Ventura Avenue/Kings Canyon Road, Blackstone Avenue, and Clovis Avenue. Additionally, General Plan Policy MT-3-a: Scenic Corridors designates several scenic corridors within the City.

According to the Caltrans State Scenic Highway Mapping System, there are no eligible or officially designated State Scenic Highways within the City.¹ However, the County has three eligible State Scenic Highways; the nearest eligible highways include a portion of SR-180 and a portion of SR-168. These portions of eligible highway constitute the closest scenic corridors to the City.

Plan Area

The General Plan does not designate any scenic corridors within the Plan Area. Gateway route designation was contemplated in the General Plan for SR-180, Clinton Way, and Tulare Avenue, all of which run through the Plan Area.

Views

A scenic vista is viewpoint that provides expansive views of a highly valued landscape for the public's benefit. It is usually viewed from some distance away. Aesthetic components of a scenic vista include (1) scenic quality; (2) sensitivity level; and (3) view access. A scenic vista can be impacted in two ways: a development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or "vista" of the scenic resource. Important factors in determining whether a proposed project would block scenic vistas include the project's proposed

¹ California Department of Transportation (Caltrans). 2018. California State Scenic Highway System Map. Website: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>. Accessed June 22, 2022.

height, mass, and location relative to surrounding land uses and travel corridors. Typical scenic vistas are locations where views of rivers, hillsides, and open space areas are accessible from public vantage points.

City of Fresno

The approved General Plan does not identify or designate scenic vistas within the Planning Area. Although no scenic vista has been designated, the City's General Plan identifies six locations along the San Joaquin River bluffs as designated vista points from which views should be maintained. Scenic vistas within the City could provide distant views of features such as the San Joaquin River to the north and the foothills of the Sierra Nevada mountains to the east. Distant views of the San Joaquin River and areas north of the river can be seen from the river bluffs. However, the majority of these views are from private property. Partially obstructed views of the San Joaquin River can be seen from Weber Avenue, Milburn Avenue, McCampbell Drive, Valentine Avenue, Palm Avenue, SR-41, Friant Road, and Woodward Park. Additionally, there are several locations throughout the eastern portion of the City that provide distant views of the Sierra Nevada foothills. It should be noted that these distant views of the Sierra Nevada foothills are impeded many days during the year by the poor air quality in the San Joaquin Valley Air Basin.

Plan Area

Several areas within the Plan Area, along Kings Canyon Road, for example, provide distant views of the Sierra Nevada foothills. Furthermore, the Plan Area is traversed by several constructed drainage features and natural waterways: Gould Canal, Redbank Slough, Dry Creek Canal, Mill Ditch, Fancher Creek Canal, and Briggs Canal.

Light and Glare

City of Fresno

The majority of the City is urbanized. Significant sources of light and glare, including streetlights, lighting within parking lots, interior lights from Downtown buildings, lighting associated with recreational facilities, and light emitted from residential and non-residential buildings characterize the City. Conversely, rural residential and agricultural areas that are located within the southeastern and western portions of the City are not characterized by significant sources of light and glare.

Project Site

The Plan Area consists primarily of agricultural land, residential uses, which do not create significant sources of light and glare. Existing sources of light and glare include street and traffic lighting as well as car and truck headlights from vehicles traveling along major roads such as Kings Canyon Road. Some light sources are emitted from residential buildings and public facilities throughout the Plan Area. These lighting sources as well as any buildings and structures made with glass, metal, and polished exterior or roofing materials that exist throughout the Plan Area could result in localized glare.

3.1.3 - Regulatory Framework

State

California Scenic Highway Program

The State Legislature created the California Scenic Highway Program, maintained by Caltrans, in 1963. The purpose of the State Scenic Highway Program is to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. The State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated. The status of a proposed State Scenic Highway changes from eligible to officially designated when the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection Program, and receives notification that the highway has been officially designated a State Scenic Highway.

Local

Fresno General Plan

The General Plan outlines a long-range vision for the physical development of the City that reflects the community's vision to preserve the desirable qualities of the existing community while encouraging the aspirations of the community. The following policies relate to aesthetics, light, and glare:

Urban Form, Land Use and Design Element

- Policy UF-1-c Identifiable City Structure.** Focus integrated and ongoing planning efforts to achieve an identifiable City structure, comprised of a concentration of buildings, people, and pedestrian-oriented activity in Downtown; along a small number of prominent east-west and north-south transit-oriented, mixed-use corridors with distinctive and strategically located Activity Centers; and in existing and new neighborhoods augmented with parks and connected by multi-purpose trails and tree lined bike lanes and streets.
- Policy UF-1-e Unique Neighborhoods.** Promote and protect unique neighborhoods and mixed-use areas throughout Fresno that respect and support various ethnic, cultural and historic enclaves; provide a range of housing options, including furthering affordable housing opportunities; and convey a unique character and lifestyle attractive to Fresnoans. Support unique areas through more specific planning processes that directly engage community members in creative and innovative design efforts.
- Policy UF-12-g Impacts on Surrounding Uses.** Establish design standards and buffering requirements for high-intensity Activity Centers to protect surrounding residential uses from increased impacts from traffic noise and vehicle emissions, visual

intrusion, interruption of view and air movement, and encroachment upon solar access.

- Policy UF-13-a** **Future Planning to Require Design Principles.** Require future planning, such as Specific Plans, neighborhood plans or Concept Plans, for Development Areas designated by the General Plan to include urban design principles and standards consistent with the Urban Form, Land Use, and Design Element.
- Policy UF-1-f** **Complete Neighborhoods, Densities, and Development Standards.** Use Complete Neighborhood design concepts, development standards, and project reviews outside the Downtown Planning Area to achieve the development of Complete Neighborhoods and the residential density targets of the General Plan.
- Objective UF-14** Create an urban form that facilitates multi-modal connectivity.
- Policy UF-14-a** **Design Guidelines for Walkability.** Develop and use design guidelines and standards for a walkable and pedestrian-scaled environment with a network of streets and connections for pedestrians and bicyclists, as well as transit and autos.
- Objective LU-1** Establish a comprehensive citywide land use planning strategy to meet economic development objectives, achieve efficient and equitable use of resources and infrastructure, and create an attractive living environment.
- Policy LU-2-e** **Neighborhood Preservation.** Incorporate standards in the Citywide Development Code to preserve the existing small-scale residential quality of older neighborhoods.
- Policy LU-3-b** **Mixed-Use Urban Corridors that Connect the Downtown Planning Area.** Support the development of mixed-use urban corridors that connect the Downtown Planning Area with the greater Fresno-Clovis Metropolitan Area with functional, enduring, and desirable urban qualities along the Blackstone Avenue, Shaw Avenue, California Avenue, and Ventura Avenue/Kings Canyon Road corridors.
- Policy LU-4-a** **Neighborhood Nuisance Abatement.** Continue proactive and responsive code enforcement and nuisance abatement programs to improve the attractiveness of residential neighborhoods.
- Policy LU-5-g** **Scale and Character of New Development.** Allow new development in or adjacent to established neighborhoods that is compatible in scale and character with the surrounding area by promoting a transition in scale and architectural character between new buildings and established neighborhoods, as well as integrating pedestrian circulation and vehicular routes.
- Policy LU-6-a** **Design of Commercial Development.** Foster high quality design, diversity, and a mix of amenities in new development with uses through the consideration of guidelines, regulations and design review procedures.

Policy LU-6-b	Commercial Development Guidelines. Consider adopting commercial development guidelines to assure high quality design and site planning for large commercial developments, consistent with the Urban Form policies of the General Plan.
Policy LU-6-d	<p>Neighborhood and Community Commercial Center Design. Plan for neighborhood mixed use and community commercial uses to implement the Urban Form concepts of the General Plan, promote the stability and identity of neighborhood and community shopping areas, and allow efficient access without compromising the operational effectiveness of the street system.</p> <ul style="list-style-type: none"> • Neighborhoods will be anchored by community commercial centers with a mix of uses that meet the area’s needs and create a sense of place.
Policy LU-6-e	<p>Regional Center Planning and Design. Promote economic growth with regional commercial centers.</p> <ul style="list-style-type: none"> • Regional shopping centers will have internally-unified building design, landscaping, and signage standards.
Policy LU-6-f	Auto-Oriented Commercial Uses. Direct highway-oriented and auto-serving commercial uses to locations that are compatible with the Urban Form policies of the General Plan. Ensure adequate buffering measures for adjacent residential uses noise, glare, odors, and dust.
Policy LU-9-e	Downtown Sightline. Require new development to preserve existing sightlines to Downtown to the extent feasible.
Policy LU-9-f	View Corridors. Promote new view corridors that highlight the Downtown skyline.
Objective D-1	Provide and maintain an urban image that creates a “sense of place” throughout Fresno.
Policy D-1-d	Public Art. Continue to promote a citywide public art program that contributes to an awareness of the City’s history and culture.
Policy D-1-e	Graphic Identity. Continue the preservation, promotion, procurement and strategic location of landmarks, monuments and artwork that provide orientation and represent Fresno’s cultural heritage and artistic values.
Objective D-2	Enhance the visual image of all “gateway” routes entering the Fresno Planning Area.
Policy D-2-a	Design Requirements for Gateways. Consider unified design requirements for gateways to welcome travelers to the City’s Activity Centers.

- Policy D-2-c** **Highway Beautification.** Work with Caltrans, the Fresno Council of Governments, Tree Fresno, neighboring jurisdictions, and other organizations to obtain funding for highway beautification programs.
- Objective D-3** Create unified plans for Green Streets, using distinctive features reflecting Fresno’s landscape heritage.
- Policy D-3-a** **Green Street Tree Planting.** Create a Green Street Tree Planting Program, with a well-balanced variety and spacing of trees to establish continuous shading and visual continuity for each streetscape. Strive to achieve coherent linkages between public and private spaces, prioritizing tree planting along tree-deficient Arterial and Collector Roadways in neighborhoods characterized by lower per capita rates of vehicle ownership.
- Policy D-3-b** **Funding for Green Street Tree Planting Program.** Pursue funding for the Green Street Tree Planting Program, including landscaping of median islands.
- Policy D-3-c** **Local Streets as Urban Parkways.** Develop local streets as “urban parkways,” where appropriate, with landscaping and pedestrian spaces.
- Policy D-3-d** **Undergrounding Utilities.** Partner with utility companies to continue to pursue the undergrounding of overhead utilities as feasible.
- Objective D-4** Preserve and strengthen Fresno’s overall image through design review and create a safe, walkable and attractive urban environment for the current and future generations of residents.
- Policy D-4-f** **Design Compatibility with Residential Uses.** Strive to ensure that all new non-residential land uses are developed and maintained in a manner complementary to and compatible with adjacent residential land uses, to minimize interface problems with the surrounding environment and to be compatible with public facilities and services.
- Objective D-5** Maintain and improve community appearance through programs that prevent and abate blighting influences.
- Policy D-5-a** **Code Enforcement.** Continue enforcement of the Fresno Municipal Code to remove or abate public nuisances in a timely manner.
- Policy D-5-b** **Clean Streets.** Promote community partnerships and continued City efforts toward litter clean-up and abatement of trash stockpiles on public and private streets.
- Policy D-5-c** **Façade Improvements.** Pursue funding for, and support of, building façade improvement programs.

- Policy D-5-d** **Graffiti Prevention and Abatement.** Seek ways to end graffiti, continue and expand the City’s effective Graffiti Abatement Program.
- Policy D-6-b** Consider adopting and implementing incentives for, and support efforts by, private development to incorporate culturally-specific architectural elements in areas with a predominant ethnic population.

Mobility and Transportation Element

- Objective MT-3** Identify, promote and preserve scenic or aesthetically unique corridors by application of appropriate policies and regulations.
- Policy MT-3-a** **Scenic Corridors.** Implement measures to preserve and enhance scenic qualities along scenic corridors or boulevards, including:
- Van Ness Boulevard—Weldon to Shaw Avenues
 - Van Ness Extension—Shaw Avenue to the San Joaquin River Bluff—Kearney Boulevard—Fresno Street to Polk Avenue
 - Van Ness-Fulton couplet—Weldon Avenue to Divisadero—Butler Avenue—Peach to Fowler Avenues
 - Minnewawa Avenue—Belmont Avenue to Central Canal—Huntington Boulevard—First Street to Cedar Avenue
 - Shepherd Avenue—Friant Road to Willow Avenue—Audubon Drive—Blackstone to Herndon Avenues
 - Friant Road—Audubon to Millerton Roads
 - Tulare Avenue—Sunnyside to Armstrong Avenues
 - Ashlan Avenue—Palm to Maroa Avenues
- Policy MT-3-b** Preserve street trees lining designated scenic corridors or boulevards. Replace trees of the predominant type and in a comparable pattern to existing plantings if there is no detriment to public safety.

Fresno Southeast Development Area Specific Plan

The Fresno SEDA Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to aesthetics, light, and glare:

Urban Form

- Objective UF-2** Provide a mix of Regional, Community, and Neighborhood Town Centers where individuals can live, work and play.
- Policy UF-2.2** **Development Code Update.** The size, density, composition, and building character of Mixed-Use Districts will be consistent with the zone district standards set forth in the SEDA Development Code Update. In addition, the Plan will call upon the

City of Fresno's Department of Public Works Standards, the Active Transportation Plan and the Fresno Area Express (FAX) transit plans to implement streetscape design and non-auto circulation elements.

Policy UF-2.3

Design and Development Principles. The following principles are provided to guide the creation of public and private spaces within the Plan Area. More specific guidelines and regulations regarding many of these elements are found in the SEDA Development Code update section of this Chapter.

- **Pattern of streets, blocks, and buildings:** The centers will be designed with pedestrian oriented streets, blocks, buildings, and public spaces based on the block connectivity and size standards specified in the SEDA Development Code update, including a transportation network which will be based on a high-density grid system. Public spaces and civic buildings shall be arranged along streets in order to create a network of civic spaces of varying size and function.
- **Building character and orientation:** The character, massing, and orientation of buildings will contribute to a cohesive urban fabric that reinforces public spaces, creates a sense of intimacy, and visually distinguishes the center from surrounding districts.

As shown in Figure 2.1 regarding building orientation, the front edges of buildings shall meet or approach front and side property lines according to the requirements of the SEDA Development Code update. Visual diversity will be created through variations in setback, massing, and architectural details. In addition, solar exposure and orientation shall be considered in the layout and design of all streets, blocks, and buildings to maximize energy and resource efficiency.

- **Center core:** Each town center will feature a core that provides a common gathering place for Southeast Fresno residents not only within the center, but surrounding districts as well. The core will accommodate the highest capacity for retail, employment, civic, and pedestrian activity of each center, and will design streets and buildings with pedestrian comfort and visual interest at the forefront.
- **Location and orientation of commercial activity:** Commercial activity is permitted throughout Regional and Community Town Centers, but the highest-intensity commercial uses (and/or ground floor commercial) will be located along all Arterials and Collector Streets and in the core area of the town center. Small convenience retail establishments, such as corner stores, can also occupy a portion of the ground floors of residential and office buildings outside of the core of centers. Ideally, office uses should be clustered around public transit stations and squares.
- **Location and orientation of large-format retail activity:** Large-format retail establishments (i.e., "big box" retail) may be located in the Regional Town

Center but are discouraged in Community or Neighborhood Town Centers in order to preserve the local neighborhood character of those areas. The urban design and parking standards of large-format retail stores will be consistent with the standards and policies of these districts. Large-format retail establishments served by surface parking will be located at the edges of the Regional Town Center, preferably adjacent to major regional roadways or highways.

- **Character, location, and orientation of public spaces:** Public gathering places that provide visual relief and passive recreation should be located in the Mixed-Use Districts and should be surrounded by civic buildings and any commercial or mixed-use buildings located in the town center.
- **Location and orientation of civic buildings:** Major civic buildings (e.g., libraries, schools, and government offices) will serve as focal points of public spaces within centers. Providing attention to distinctive building details, entry features and varying setbacks will allow civic buildings to stand out from other structures in the center. Wherever possible, civic buildings will be located in proximity to and open onto public spaces.

Objective UF-3 Foster a community of tight-knit residential districts.

Policy UF-3.2 **Development Code Update.** The size, density, composition, and building character of Residential Districts will be consistent with the SEDA zone district standards implemented through a Development Code update. Streets and non-auto circulation elements will be implemented according to the standards set in the Development Code.

Objective UF-4 Attract high-profile businesses to create bustling and desirable Employment Districts.

Policy UF-4.2 **Development Code Update.** The size, density, composition, and building character of Employment Districts will be consistent with the proposed SEDA zone district standards set forth in the SEDA Development Code update. In addition, the Plan will draw upon the City of Fresno’s Department of Public Works Standards, the Active Transportation Plan, and the Fresno Area Express (FAX) transit plans to implement streetscape design and non-auto circulation elements.

Objective UF-7 Create a parking strategy to address current and future needs.

Policy UF-7.3 **Parking Design.** Support vibrant, walkable, and accessible communities by successfully integrating and managing parking facilities within the urban fabric.

- **Surface lot Standards:** Integrate a site design that is pleasant, convenient, and unobtrusive to the streetscape.

- Connecting walkways shall be provided to afford convenient pedestrian access from the interior of parking areas to nearby buildings or open spaces.
- Landscaped setbacks with a minimum width of 10 feet shall be provided wherever a surface parking lot abuts a street; this may include the use of landscape material, land forms, rockeries, trellises, colonnades, and other elements.
- Landscaped islands shall be installed at the ends of all on-grade parking bays and shall contain one tree per adjacent stall.
- Landscaped medians shall have a minimum width of 8 feet from back of curb to back of curb.
- Paving and planting materials shall be approved by the Planning and Development and Public Works Directors.
- **Structured Lot Standards:** Enable structure design similar to the surface lot standards that is pleasant, convenient, and unobtrusive to the streetscape.
 - Residential parking structures should be shielded from the street on all sides by other uses.
 - Public parking structures within one block of the Super Arterials and Arterials of the Regional or Community Town Centers shall provide ground floor retail, commercial, office, or other pedestrian-compatible use for at least 70 percent of their street frontage (except to the extent that frontage minimums interfere with minimum access requirements).
 - Minimize heat island effect and urban stormwater runoff.
 - Install planting, shading and paving techniques to minimize environmental impacts of parking facilities.
 - For vegetative shading, please refer to City of Fresno Performance Standards for Parking Lot Shading (Fresno Development Code Section 15-2421).
 - Soil and planting materials on surface lots shall serve to:
 - Suppress sediment movement
 - Trap sediment-attached substances
 - Encourage infiltration
 - Encourage nutrient-fixing and absorption of flushed surface contaminants during detention and infiltration
 - Paving in high-density and commercial areas should consist of pervious pavement systems or equivalent technology, achieving a reduction of not less than 50 percent net impervious cover, for at least 50 percent of total pavement areas as compared to a typical concrete or asphalt paving system.
 - Materials with a minimum solar reflectance index (SRI) of 29 should be used on at least 50 percent of all impervious parking surfaces (including roofing over covered parking stalls).

- **Accessible Parking:** The Plan Area will provide for accessible parking in accordance with the ADA [Americans with Disabilities Act] standards and Title 24 California Building Code and on-street in accordance with the best practices of the Pedestrian Rights of Way Accessibility Guidelines (PROWAG).
- **Preferential Parking:** Provide preferential parking to encourage more sustainable travel behavior.
 - Develop pro rata requirements for the provision of preferential nonresidential parking for, but not limited to, all of the following modes of transportation in order of importance (high to low):
 - Bicycles
 - Motorcycles
 - Carshare Vehicles
 - Electric Vehicles
 - Carpools/vanpools

Open Space, Schools, and Public Facilities

Objective OS-2 Create and maintain an open space network that serves multiple purposes, including recreation, stormwater management, community farming, and environmental preservation.

Policy OS-2.2 **Passive Open Space.** Support natural landscapes and wildlife habitat corridors by maintaining passive open spaces.

- Work with local land trusts to establish conservation easements that preserve land as part of the SEDA open space network.

Policy OS-4.1 **Multiuse Trails.** Establish a planned network of multiuse greenway trails. These trails will serve bicyclists, pedestrians, and, where appropriate, equestrians. Cross-sections and width requirements will be provided for specific conditions—including canal side, open space, streetside, and farm side trails.

Policy OS-4.3 **Trail Standards.** Trails shall be designed with features that encourage use, provide safety, and are resource-efficient. Trail standards shall address shading, low-water landscaping, fencing, paving and surface materials, lighting, seating and furniture, ADA access requirements, signage, and intersection treatments.

Community Farming and Agriculture

Objective CF-2 Create a long-term transition zone between urban uses in the City of Fresno and agricultural land in Fresno County. Buffering urban and adjoining agricultural land uses reduce conflicts that can arise due to noise, pollution, or traffic.

Policy CF-2.2 **Passive Recreation.** Encourage the creation of regional trails and open spaces in Rural Cluster Districts that connect urban uses to agricultural uses with trails for pedestrians, bicyclists, and equestrians.

- **What is the role of rural cluster development?**

- A transitional buffer. Urban areas and large agricultural operations cannot always sit side-by-side. Noise, dust, and pesticides from farms can pose health concerns for residents, while farmers need space to move machinery and goods. Rural clusters along the eastern edge of SEDA form a transition between the urban area and the agricultural lands beyond.
- An attractive residential option. Rural clusters offer a rural lifestyle within an environmentally responsible land use framework that promotes active farming and open space preservation.
- A means to preserve land. Rural cluster lands can be used for organic small-scale farming, equestrian activities, or other uses compatible with the nearby homes. The vast majority of the land is preserved as viable agricultural land or open space.

Objective CF-3 Promote community farming to provide opportunities for entrepreneurs and families to grow food for commercial and household production. Community farming is intended, in part, to diversify agriculture and make residents of the Southeast Development Area stakeholders in the success of Fresno County agriculture.

Policy CF-3.3 **Community Farming.** Create and expand a viable community farming program that promotes an appreciation of food and local ecology, instills a sense of stewardship and community, and provides a recreational activity.

- **Community/Neighborhood Gardens.** Create and support neighborhood gardens within local communities. Neighborhood gardens, such as Yo’Ville Community Garden in Southwest Fresno, are woven into the fabric of centers and residential areas, providing households with opportunities to grow some of their own produce and meet with other members of the community.
 - **Location.** Neighborhood gardens shall be integrated into Neighborhood Centers, open spaces, and other locations that place them within walking distance of most residents’ homes.
 - **Access.** Access to community spaces can vary. Gardens can be open to the public, or only to designated users.
 - **Management.** Management structures of community spaces shall be determined as appropriate. Neighborhood gardens can be owned by a city or county agency or by a private landowner, and operated by a neighborhood collective, community garden association, non-profit, or city/county parks and recreation department that leases small plots of the garden to community members. Some neighborhood gardens are independent entities, while some jurisdictions have neighborhood garden programs that oversee all the gardens in a jurisdiction.
 - **Funding and staff assistance.** The City of Fresno shall encourage neighborhood organizations to seek funding for the neighborhood garden

program and/or facilitate assistance through the Fresno Parks, After School, Recreation, and Community Services Department or other agency/organization.

- **School Gardens.** Support and foster the integration of school gardens within neighborhood schools, such as the school garden located at Kepler Neighborhood School in Downtown Fresno. School gardens can serve as outdoor classrooms where students learn about soil, botany, natural cycles, nutrition, and basic gardening principles in a hands-on setting.
 - **Location.** School gardens should be located on school grounds, or within a very short walk of a school. When possible, school gardens should be planned upon new school construction in order to maximize joint-use opportunities with the City of Fresno Parks, After School, Recreation, and Community Services Department.
 - **Access.** Access should be controlled based on school district policies.
 - **Management.** Management structures shall be determined as appropriate. School gardens are typically managed by at least one garden coordinator who works closely with school administration or one or more dedicated teachers.
 - **School gardens working group.** Create a working group of teachers, students, and residents to explore the development of school garden programs in the Clovis and Sanger Unified School Districts.
- **Community Orchards.** Support and preserve community orchards for both new and existing orchards within the SEDA. Community orchards can be integrated into the community's open space network, serving as park-like features and enhancing connections to agriculture.
 - **Location.** Community orchards can be integrated into public open spaces or associated with private development.
 - **Access.** Community orchards should be unfenced, with high levels of public access.
 - **Management.** Management structures shall be determined as appropriate. In a typical model, residents help to care for the orchards and pay fees to fund professional gardeners.

Greenhouse Gas Reduction and Conservation

Policy RC-1.7

Urban Forestry Program. Encouraging the integration and protection of new and existing mature trees within our communities can lead to significant reductions in the urban heat island effect and energy required for cooling. As another significant benefit, trees also store harmful carbon as they grow, in a process known as sequestration. As these trees continue to grow, mature and sequester carbon, it is also important for urban forestry projects to consider potential tree emissions that result from the maintenance and ultimate disposition of trees to ensure a net decrease in greenhouse gas emissions occurs.

Maintaining trees, vegetation and plants throughout City parks is important to the success and longevity of these publicly owned spaces. In addition, these areas provide opportunities for new tree planting and replacement of tree species that possess a low potential to store carbon, with tree species that possess higher carbon storage potential. To better understand how to achieve these opportunities, there are many tools that communities can utilize. The Climate Action Reserve, Urban Forest Project Reporting Protocol (CAR 2019) provides criteria for generating greenhouse gas emission offsets with tree planting along with procedures for project monitoring.

Development of the SEDA will present many opportunities for the strategic planting of trees with high carbon storage potential, as noted below:

- Develop a tree palette for the SEDA that reinforces its sense of place, reflects native species, and includes tree species with high carbon storage potential.
- Meet parks shading targets noted in the Parks Master Plan.
- Plant shade trees to delineate corridors and the boundaries of urban areas, and to provide tree canopy for bike lanes, sidewalks, parking lots, trails and transit stops.

Cultural and Historic Resources

Objective CR-3 Identify and protect significant structures, sites and landscapes within the Southeast Development Area.

Policy CR-3.6 **Resource Protection.** Incorporate historic sites, infrastructure and landscape features into new developments in order to conserve resources and preserve the area’s vernacular landscape and “sense of place.”

Fresno Municipal Code

Chapter 13 Article 3 of the Municipal Code outlines the Public Tree Policy, Tree Beautification policies, and Tree Preservation policies.²

Fresno Citywide Development Code

Chapter 15 of the Municipal Code outlines the Citywide Development Code, which implements the General Plan by providing a precise guide for the physical development of the City, to promote high quality architecture and sustainable design, to promote a safe and efficient traffic circulation system, including bicycle facilities and pedestrian amenities, and to support a multimodal transportation system, to facilitate the appropriate location of community facilities, institutions, parks, and recreational areas, and to safeguard and enhance the appearance of the City. The regulations in the

² City of Fresno. Fresno Municipal Code Chapter 13—Sidewalks, Streets, Parkways, and Underground Utility Districts. Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH13SISTPAUNUTDI_ART3STTRPA. Accessed June 22, 2022.

Development Code vary for various zoning districts but include metrics such as density and massing, site design, façade design, and use regulations.³

Article 23 of the Development Code outlines landscaping design regulations.⁴

Article 24 of the Development Code outlines parking area development standards.⁵

Article 26 of the Development Code outlines regulations for signage.⁶

Section 15-2015 of the Development Code outlines outdoor lighting and illumination requirements and regulations.⁷

The proposed project would also implement customized zoning requirements for the Specific Plan Area, which would be written and included in the Municipal Code after the adoption of the proposed project.

3.1.4 - Methodology

Impacts related to aesthetics resulting from implementation of the proposed project are discussed below. The impact analysis is based on the existing visual character of the Plan Area, including scenic vistas, highways, roadways, and existing sources of light and glare. Changes to aesthetic resources that may occur from implementation of the proposed project are identified and qualitatively evaluated based on potential modifications to the existing aesthetic setting.

3.1.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in the CEQA Guidelines Appendix G Environmental Checklist as thresholds to determine whether impacts to aesthetics are significant environmental effects.

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts to resources are significant. These questions reflect the input of planning and environmental professionals at the Governor's Office of Planning and Research and the California Natural Resources Agency, based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. Accordingly, the City has derived its significance criteria, based in part on the questions posed in Appendix G. These significance criteria are as follows:

³ City of Fresno. Fresno Municipal Code Chapter 15—Citywide Development Code, Including Revisions. Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH15CIDECOINRE. Accessed March 22, 2023.

⁴ City of Fresno. Fresno Municipal Code Chapter 15—Citywide Development Code, Including Revisions. Article 23—Landscape. Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH15CIDECOINRE_PTIHREAPSOALDI_ART23. Accessed March 22, 2023.

⁵ City of Fresno. Fresno Municipal Code Chapter 15—Citywide Development Code, Including Revisions. Article 24—Parking and Loading. Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH15CIDECOINRE_PTIHREAPSOALDI_ART24. Accessed March 22, 2023.

⁶ City of Fresno. Fresno Municipal Code Chapter 15—Citywide Development Code, Including Revisions. Article 26—Signs. Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH15CIDECOINRE_PTIHREAPSOALDI_ART26. Accessed March 22, 2023.

⁷ City of Fresno. Fresno Municipal Code Chapter 15—Citywide Development Code, Including Revisions. Article 20—General Site Regulations. Section 15-2015—Outdoor Lighting and Illumination. Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH15CIDECOINRE_PTIHREAPSOALDI_ART20. Accessed January 14, 2025.

Would the project:

Except as provided in Public Resources Code Section 21099, the project would have a significant impact on the environment if it would:

- 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 building within a State Scenic Highway.
- c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.1.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the proposed project and provides mitigation measures where appropriate.

Scenic Vistas

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

Future development under the proposed project would have significant impacts to scenic vistas and/or scenic corridors if new development blocks views from scenic vistas and/or scenic corridors. Potential impacts could include obstructed views of a scenic vista or scenic corridor from public viewpoints or modification of the scenic vista or scenic corridor.

The General Plan does not identify any scenic vistas from within the City. Although the General Plan identifies six locations as publicly valued scenic features along the San Joaquin River bluffs, the river bluffs are not visible from the Plan Area due to the flat topography of the City. General Plan Policy MT-3 identifies scenic corridors in the City, none of which are located within the Plan Area. However, the General Plan contemplated gateway route designation for SR-180, Clinton Way, and Tulare Avenue, all of which run through the Plan Area. The existing General Plan policies and proposed Specific Plan policies identified below would guide the development of these gateways such that their aesthetic quality would be promoted and preserved.

The General Plan includes policies intended to protect scenic vistas and scenic corridors in the City. Policy D-1-e requires the continued preservation, promotion, procurement, and strategic location of landmarks, monuments and artwork that provide orientation and represent Fresno's cultural heritage and artistic values. Policy D-2-a considers unified design requirements for gateways to

welcome travelers to the City's Activity Centers. Policy D-2-c seeks out funding for highway beautification. Policy D-3-a requires the creation of a Green Street Tree Planting Program. Policy D-5-b promotes City efforts toward litter clean up and abatement. Policy MT-3-b requires that the preservation of street trees lining designated corridors or boulevards.

The Specific Plan also includes proposed policies intended to protect scenic vistas and scenic corridors in the City. Policy RC-1.7 encourages integration, protection, and maintenance of new and existing mature trees in the community as well as vegetation and plants throughout City parks.

Any future individual development projects would be reviewed by the City for compliance with the Development Code, which provides a precise guide for the physical development of the City, promotes high quality architecture and sustainable design, and aims to safeguard and enhance the appearance of the City. In addition, all future development would be required to comply with the objectives and policies of the General Plan and Specific Plan designed to protect scenic resources and natural features. At the programmatic level, aesthetic impacts to views would be reduced to a less than significant level. Consistent with the existing General Plan and proposed Specific Plan policies, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific or project-specific measures to reduce any potential impacts and would ensure that impacts remain less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Scenic Highways

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

Scenic highways are California highways designated by a local governing body and protected by the State Scenic Highway Program for the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. There are no officially designated State Scenic Highways in the City and thus no view corridors in the Plan Area.⁸ As a result, the proposed project would result in no impact to scenic highways.

Level of Significance Before Mitigation

No impact.

⁸ California Department of Transportation (Caltrans). 2018. California State Scenic Highway System Map. Website: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>. Accessed June 22, 2022.

Mitigation Measures

None required.

Visual Character

Impact AES-3:	The proposed project would in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point).
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Impact Analysis

Future development allowed by the Specific Plan could degrade the visual character of the Plan Area if the form and appearance of new development deteriorate the quality of the existing setting. As described above, the Plan Area exhibits a predominantly agricultural and rural residential character. Future development allowed by the Specific Plan would introduce intensified building development compared with what is currently characteristic of the Plan Area. However, some rural residential, open space, and agricultural land uses would be preserved.

The proposed project includes updates to the Development Code to implement the proposed land use and zoning updates. The Specific Plan also includes policies intended to guide the visual character of the Plan Area to ensure visually appealing and cohesive design. Policy UF-2.3 outlines design principles for the character of buildings, streets blocks, commercial uses, and town centers. Policy UF-7.3 supports vibrant, walkable, and accessible communities by enabling parking lot design that is pleasant unobtrusive to the streetscape by adhering to listed standards. Policy OS-2.2 supports natural landscape and wildlife habitats by encouraging the maintenance of passive open spaces. Policy OS-4.1 encourages the establishment of a planned network of multiuse greenway trails. Policy CF-3.3 encourages the expansion of a viable community farming program, which would help preserve the agricultural character of the area. Lastly, Policy CR-3.6 requires the incorporation of historic sites, infrastructure, and landscape features into new developments to preserve the Plan Area's sense of place.

The Specific Plan includes updates to the Development Code, which would require that the size, density, composition, and building character of residential districts be consistent with the SEDA Land Use District Standards set forth in the SEDA Development Code Update. These updates, along with Specific Plan policies, would guide the development of the area such that visual quality is maintained. Any future individual development projects would be reviewed by the City for compliance with the Development Code, which provides a precise guide for the physical development of the City, promotes high-quality architecture and sustainable design, and aims to safeguard and enhance the appearance of the City. In addition, all future development would be required to comply with the policies and actions of the General Plan and Specific Plan designed to protect visual character and quality. Consistent with the General Plan and Specific Plan policies, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific or project-specific measures to reduce any potential impacts.

However, buildout of the Specific Plan would alter the existing visual character by increasing the intensity of development in many areas that are primarily agricultural. No feasible mitigation measures are available to mitigate the impact to a less than significant level. Therefore, impacts are considered significant and unavoidable.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

No feasible mitigation measures are available.

Level of Significance After Mitigation

Significant and unavoidable impact.

Light and Glare

Impact AES-4:	The proposed project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.
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Impact Analysis

All future development in accordance with the Specific Plan would result in land use changes within the Plan Area. These land use changes include the development of new residential and nonresidential land uses.

Intensified development in the Plan Area could increase the amount of light from streetlights, exterior lighting from buildings, and vehicle headlights. The increase in lighting within the Plan Area could result in light spillover onto adjacent areas and could substantially illuminate the sky during nighttime. This increase in illumination is considered a significant impact.

Many areas directly adjacent to the Plan Area are exposed to a small amount of light due to the existing rural and agricultural setting. Intensified development in the Plan Area would considerably increase the amount of lighting systems within the Plan Area, which could result in an increase in light spillover to adjacent areas. Furthermore, increased nighttime traffic resulting from intensified development would create additional sources of light from car headlights. Therefore, development would increase the amount of light, causing spillover onto properties adjacent to the Plan Area and an increase in the nighttime sky illumination. This increase in light is considered a significant impact.

Development in accordance with the proposed Specific Plan and the Development Code would increase the number of new structures that could create new sources of glare within the Plan Area and directly adjacent to the Plan Area. These new sources of glare could result from materials used on building façades, parking lots, signs, roadway surfaces, and motor vehicles. Because of the amount of new building square footage planned for the Plan Area, new buildings would result in a substantial increase in glare. This increase could result in significant glare impacts.

Future development facilitated by implementation of the proposed project would be required to comply with the lighting standards established in the City Municipal Code (Article 25, Performance

Standards). Future development would also comply with the proposed Specific Plan policies related to light and glare including Policy OS-4.3, which provides guidance on lighting standards for trails.

Further, the General Plan does not include any specific existing policies related to light and glare. Therefore, the proposed project would be required to implement Mitigation Measure (MM) AES-4a, which requires outdoor lighting to include shields; MM AES-4b, which requires lighting in public locations to have enough light for activities but while minimizing light spill; MM AES-4c, which requires light to be oriented away from other residential uses; MM AES-4d, which requires freestanding signs to not exceed 100 footlambert (ft-L); and MM AES-4e, which restricts use of reflective surfaces. The implementation of MM AES-4a through MM AES-4e would reduce impacts related to light and glare.

Consistent with the existing General Plan and proposed SEDA Specific Plan policies, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific or project-specific measures to reduce any potential impacts. For example, all future development would be required to comply with glare standards established Article 25 of the Municipal Code.⁹ Additionally, implementation of MM AES-4a through MM AES-4b would reduce potential glare impacts resulting from the proposed project. However, impacts would remain significant and unavoidable.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

- | | |
|------------------|--|
| MM AES-4a | Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residences. |
| MM AES-4b | Lighting systems for public facilities such as active play areas shall provide adequate illumination for the activity; however, low-intensity light fixtures and shields shall be used to minimize spillover light onto adjacent properties. |
| MM AES-4c | Lighting systems for nonresidential uses, not including public facilities, shall provide shields on the light fixtures and orient the lighting system away from adjacent properties. Low-intensity light fixtures shall also be used if excessive spillover light onto adjacent properties will occur. |
| MM AES-4d | Lighting systems for freestanding signs shall not exceed 100 footlambert (ft-L) when adjacent to streets which have an average light intensity of less than 2.0 horizontal foot-candles and shall not exceed 500 ft-L when adjacent to streets that have an average light intensity of 2.0 horizontal foot-candles or greater. |

⁹ City of Fresno. Fresno Municipal Code Chapter 15—Citywide Development Code. Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH15CIDECOINRE_PTIIIREAPSOALDI_ART25 PEST. Accessed June 22, 2022.

MM AES-4e Materials used on building façades shall be non-reflective.

Level of Significance After Mitigation

Significant and unavoidable impact.

3.1.7 - Cumulative Impacts

The geographic scope of the cumulative impact analysis for aesthetics is the Plan Area and portions of the City of Fresno, City of Clovis, and unincorporated Fresno County located outside of the Plan Area that can be viewed from and have views of the Plan Area. This analysis evaluates whether impacts of the Specific Plan, together with impacts of cumulative development, would result in a cumulatively significant impact with respect to aesthetics. This analysis then considers whether incremental contribution of the impacts associated with implementation of the Specific Plan would be significant. Both conditions must apply for cumulative effects to rise to the level of significance.

In general, potential visual impacts to the character of an area take into account the immediate surroundings; thus, the analysis of cumulative aesthetic impacts focus on areas that share a viewshed with the Plan Area. The Plan Area and most of the surrounding area is predominately rural and rural residential. Future development in the cumulative context would include new residential, commercial, and industrial development consistent with the General Plan or the applicable General Plans of each of the surrounding municipalities. Future development would be subject to the design review processes of the individual jurisdiction, and the applicable land use plans contain policies and implementing actions to preserve visual character, land use compatibility, and views in those jurisdictions. Cumulative projects within the City would be required to comply with applicable City General Plan policies and programs and adhere to development and design standards in the Municipal Code that address aesthetics, including lighting and glare, the alteration of scenic resources and natural features, the alteration of views of scenic resources and natural features. However, continued buildout of the General Plan and nonagricultural development in the surrounding communities identified by the geographic scope would continue to significantly change the visual character of the area and amount of nighttime illumination, even with adherence to General Plan policies and project-specific design review. For these reasons, cumulative impacts to aesthetics or nighttime lighting and daytime glare would be significant.

As previously discussed above, there are no designated scenic vistas or State-designated Scenic Highways in the Plan Area or the City. The proposed project and cumulative development would be subject to specific regulations and guidelines related to building heights, setbacks, undergrounding of utilities, landscaping, signage, and permitted land uses. However, cumulative development is anticipated to contribute to the conversion of rural and agricultural uses to urban uses. This cumulative change is expected to result in a substantial alteration of the existing visual character of the area. Additionally, the project's contribution to light and glare is also expected to generate new sources of light and glare, even with the implementation of MM AES-4a through MM AES-4e. These new sources of glare could result from materials used on building façades, parking lots, signs, roadway surfaces, and motor vehicles. Therefore, the proposed project could result in cumulatively considerable visual character and light and glare impacts. Thus, overall, the project would result in significant and unavoidable cumulative impacts.

Level of Cumulative Significance Before Mitigation

Potentially significant impact.

Cumulative Mitigation Measures

Implementation of MM AES-4a through MM AES-4e.

Level of Cumulative Significance After Mitigation

Significant and unavoidable impact.

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3.2 - Agricultural Resources and Forestry Resources

3.2.1 - Introduction

This section of the Recirculated Draft Program Environmental Impact Report (Recirculated Draft PEIR) describes the existing agricultural and forestry resources in the Plan Area as well as the relevant regulatory framework. This section also evaluates the possible impacts related to agricultural and forestry resources that could result from implementation of the project. Descriptions and analysis in this section are based, in part, upon existing site conditions, plans/exhibits of the Planning Area, the Fresno General Plan (General Plan), and the California Department of Conservation website as well as aerial photographs, topographical maps, and street maps.

Eleven public comments were received during the EIR scoping period related to Agricultural Resources and Forestry Resources:

- Request to consider whether agricultural conservation easements are feasible mitigation.
- Request for the Draft PEIR to discuss the type, amount, and location of farmland conversion resulting from the proposed project.
- Request for the Draft PEIR to evaluate impacts on any current or future agriculture operations in the vicinity.
- Requests for the Draft PEIR to evaluate incremental impacts leading to cumulative impacts on agricultural land.
- Request for the Draft PEIR to include mitigation measures for impacts to agricultural land.
- Requests for the Draft PEIR to evaluate the proposed project's compatibility with any agricultural land enrolled in a Williams Act Contract and for the notification to the Department of Conservation of non-renewal and/or cancellation of a Williams Act Contract.
- Recommendations that the current and former agricultural lands in the Plan Area be evaluated in accordance with Department of Toxic Substances Control (DTSC) 2008 Interim Guidance for Sampling Agricultural Properties (Third Addition).
- Recommendations that any construction and/or development within an Agricultural Preserve consult with/obtain approval from the County Policy and Planning Department.
- Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the Plan Area.
- Requests that the Draft PEIR identify and adopt all feasible and enforceable mitigation measures that avoid and reduce negative impacts.
- Requests that the Draft PEIR analyze and create mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.2.2 - Environmental Setting

City of Fresno

According to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), the City of Fresno's (City's) Sphere of Influence (SOI) contains approximately 9,134 acres of Prime Farmland, approximately 3,224 acres of Unique Farmland, and approximately 2,269 acres of Farmland of Statewide Importance (totaling approximately 14,627 acres).¹ Based on existing farmland data received from the Fresno County Assessor's Office Land Use Codes that were provided by City staff, there is a total of approximately 11,495 acres in active agricultural production.² According to the General Plan, much of the City's agricultural uses within the City's SOI are located outside the city limits. The Fresno Southeast Development Area (SEDA) contains approximately 5,000 acres in agricultural production, representing roughly 50 percent of the total active agricultural farmland within the General Plan Planning Area.

The General Plan does not include a land use designation that allows for exclusively agriculture uses. The General Plan does include a Buffer designation, which allows agricultural uses and other complementary uses, including environmental, habitat, water conveyance, retention and recharge, and preservation and preparation of gravel resources for beneficial uses related to permanent water resource facilities. The Buffer designation is intended to separate urban uses from long-term agricultural uses to preserve long-term viable agricultural production and intensive farming operations adjacent to the Planning Area. The Buffer designation is approximately 0.25-mile wide and is located along the eastern boundary of the City, within the Fresno Southeast Development Plan Area (Plan Area), encompassing approximately 715 acres. Additionally, the City and its SOI contain approximately 1,012 acres of prime agricultural land and 931 acres of non-prime agricultural land that are under Williamson Act Contracts (i.e., Statewide Importance, Unique, or Local Importance, and other lands).

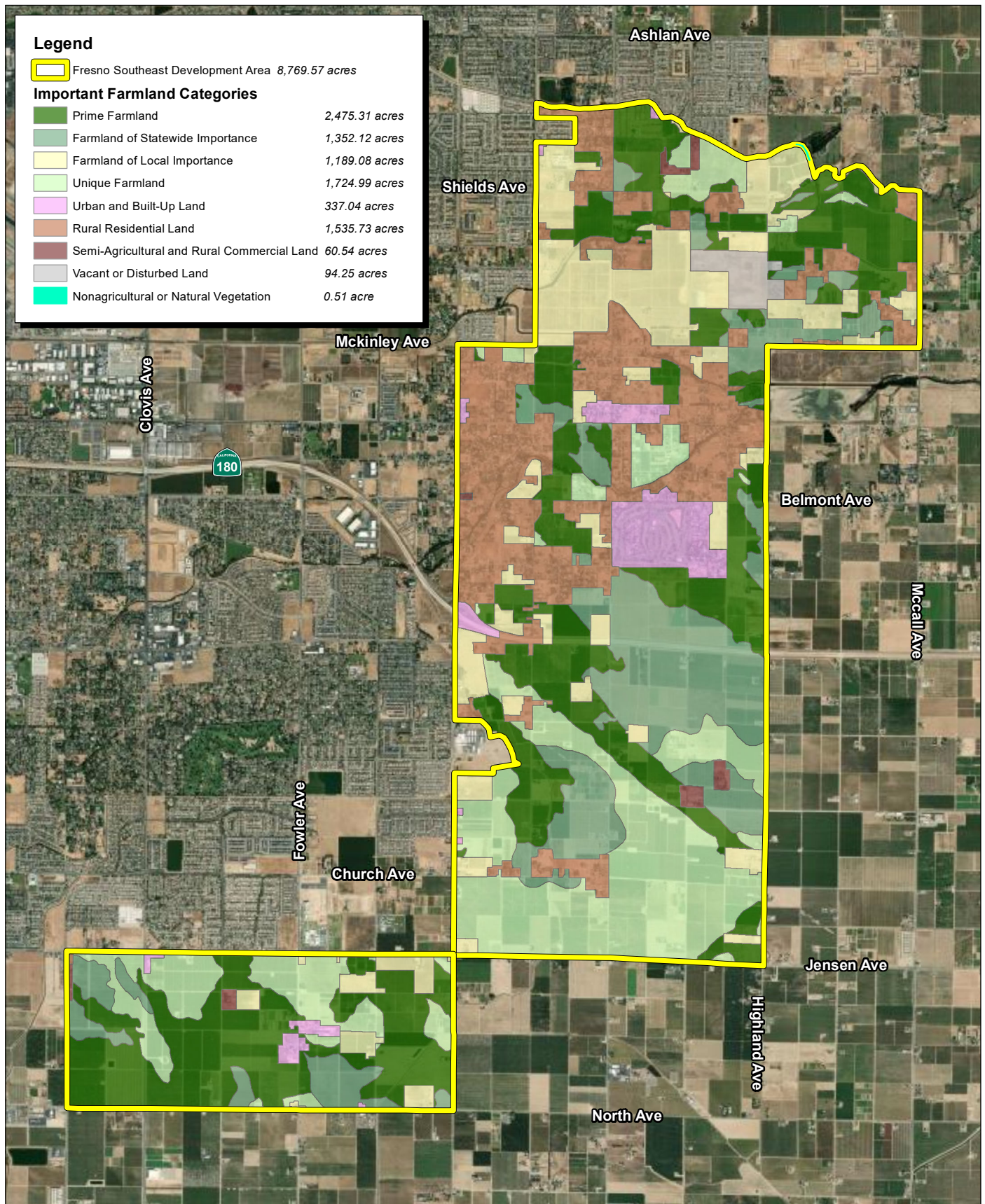
Plan Area

The Plan Area is located in the City of Fresno. As discussed in Chapter 2 of this Recirculated Draft PEIR, Project Description, the predominant existing use in the Plan Area (approximately 5,000 acres) is agriculture, with the primary crops being vineyards, fruit trees within orchards, and vegetables. The Plan Area also contains agriculture-related uses such as plant nurseries and wineries. According to the FMMP data, the Plan Area contains a variety of soil types, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance.³ As shown in Exhibit 3.2-1, the Plan Area contains approximately 2,475 acres of Prime Farmland, approximately 1,352 acres of Farmland of Statewide Importance, approximately 1,189 acres of Farmland of Local Importance, and approximately 1,725 acres of Unique Farmland. These uses are spread intermittently throughout the Plan Area. Further, the majority of land under Williamson Act Contract in the City and SOI is located in the Plan Area.

¹ California Department of Conservation. 2020. Farmland Mapping and Monitoring Program California Important Farmland Finder. Website: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed November 22, 2024.

² It should be noted that agricultural operations are not necessarily occurring on all of the land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and conversely agricultural operations are also occurring on parcels that are not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

³ California Department of Conservation. 2016. California Important Farmland Finder. Website: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed April 28, 2022.



Source: ESRI Aerial Imagery. CA Department of Conservation Fresno County 2018.

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Exhibit 3.2-1 Important Farmland Map

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3.2.3 - Regulatory Framework

Federal

Farmland Protection Policy Act

The Farmland Protection and Policy Act (FPPA) was designed to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The FPPA assures that to the extent possible, federal programs are administered to be compatible with State, local units of government, and private programs and policies to protect farmland. Federal agencies are required to develop and review their policies and procedures to implement the FPPA every 2 years. The FPPA does not authorize the federal government to regulate the use of private or nonfederal land or, in any way, affect the property rights of owners. For the purposes of the FPPA, “farmland” includes Prime Farmland, Unique Farmland, and Farmland of Statewide or Local Importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban/built-up land.

State

Farmland Mapping and Monitoring Program

The California Department of Conservation established the FMMP in 1982. The FMMP is a non-regulatory program that provides a consistent and impartial analysis of agricultural land use and land use changes throughout California. The FMMP produces maps and statistical data used for analyzing impacts on California’s agricultural resources. The maps are updated every 2 years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance. The program rates agricultural lands according to physical characteristics and other factors such as irrigation status. The best-quality farmland is land that contains a combination of physical and chemical features able to sustain long-term agricultural production and is classified as Prime Farmland. Additional classifications include Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance (Table 3.2-1).

The FMMP also inventories and maps a variety of other land use categories. For purposes of determining a proposed project’s significance under the California Environmental Quality Act (CEQA), only Prime Farmland, Unique Farmland, and Farmland of Statewide Importance are used to determine impacts. Conversion to nonagricultural uses of lands falling under any of these classifications is considered a potentially significant impact under CEQA Guidelines.

Table 3.2-1 provides a description of the various farmland classifications from the United States Department of Agriculture.

Table 3.2-1: Description of Farmland Classifications

Farmland Category	Description
Prime (P)	Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
Statewide Importance (S)	Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
Unique (U)	Farmland 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 climatic zones in California. Land must have been cropped at some time during the 4 years prior to the mapping date.
Local (L)	Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. In some counties, Confined Animal Agriculture facilities are part of Farmland of Local Importance, but they are shown separately.
Grazing (G)	Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.
Urban and Built-Up Land (U)	Land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
Other (X)	Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.
Water (W)	Perennial water bodies with an extent of at least 40 acres.

California Land Conservation Act

The California Land Conservation Act, better known as the Williamson Act, was enacted by the State Legislature in 1965 to encourage the preservation of agricultural lands. Under the provisions of the act, landowners agreeing to keep their lands under agricultural production for a minimum of 10 years receive property tax adjustments. Williamson Act Contracts limit the use of contracted properties to agricultural, open space, and other compatible uses. Williamson Act lands are assessed based on their agricultural value rather than their potential market value under nonagricultural uses.

Local

Fresno General Plan

Resource Conservation and Resilience Element

Objective RC-9 Preserve agricultural land outside of the area planned for urbanization under this General Plan.

Policy RC-9-a Regional Cooperation. Work to establish a cooperative research and planning program with the Counties of Fresno and Madera, the City of Clovis, and other public agencies to conserve agricultural land resources.

Policy RC-9-b Land Outside SOI. Express opposition to residential and commercial development proposals in unincorporated areas (excluding County Islands) within or adjacent to the Planning Area when these proposals would do any of the following:

- Make it difficult or infeasible to implement the General Plan;
- Contribute to the premature conversion of agricultural, open space, or grazing lands; or
- Constitute a detriment to the management of resources and/or facilities important to the Fresno Metropolitan Area (such as air quality, water quantity and quality, traffic circulation, and riparian habitat).

Policy RC-9-c Farmland Preservation Program. In coordination with regional partners or independently, establish a Farmland Preservation Program. When Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is converted to urban uses outside city limits, this program would require that the developer of such a project mitigate the loss of such farmland consistent with the requirements of CEQA. The Farmland Preservation Program shall provide several mitigation options that may include, but are not limited to the following: Restrictive Covenants or Deeds, In Lieu Fees, Mitigation Banks, Fee Title Acquisition, Conservation Easements, Land Use Regulations, or any other mitigation method that is in compliance with the requirements of CEQA. The Farmland Preservation Program may be modeled after some of all of the programs described by the California Council of Land Trusts.

Healthy Communities Element

Policy HC-5-f Urban Agriculture. Promote a full range of urban agriculture activities, including farmers' markets, farm stands, community gardens, on-site garden produce market stands, and urban farms. Support associations involved in these activities, which can be accomplished by a combination of the following:

- Amend the Fresno Municipal Code (FMC) to provide clear and concise permitting procedures regarding Community Gardens, On-site Garden Produce Market Stands, and Urban Farms that allow sale of foods grown locally.
- Create a policy for reduced planning entitlements and plan check fees.

- Make publicly available an inventory of City-owned surplus land that could be used for urban agriculture.
- Continue to allow and promote community gardens in City-owned parks.
- Support the planning of community gardens within walking distance of high-density residential areas to compensate for the reduced amount of open space in these areas.
- Emphasize opportunities for urban agriculture in all areas of the City, schools, parks, residential food deserts, and especially in areas of the City with a relatively high proportion of “food insecure” individuals.

Policy HC-5-g Commercial Agriculture. Continue to develop policies to allow agriculture on land greater than 50 acres in area.

Fresno Southeast Development Area Specific Plan

The Fresno SEDA Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Specific Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to agricultural resources:

Urban Form

Objective UF-1 Create complete neighborhoods in the Southeast Development Area that integrate housing, business and retail amenities. Implement a Southeast Development Area plan that balances and mixes housing, jobs, commercial businesses, services, and public facilities to help meet existing thresholds for lower vehicle miles traveled, reduced air pollution, and the efficient use of groundwater resources in compliance with the Sustainable Groundwater Management Act of 2014.

Policy UF-1.6 Right-to-Farm. Establish right-to-farm practices in accordance with the Fresno County Right-to-Farm Ordinance to allow the continued operation of agricultural activities which occur adjacent to new residential developments. Require buffers between new residential development and existing farmlands.

Housing Choice and Affordability

Objective HC-1 Mix housing types and designs throughout the Plan Area to respond to the needs of all household types. The Southeast Development Area Specific Plan accommodates a diverse range of household demographics and preferences with housing types that range from higher-density multi-family homes to medium-lot single-family homes.

Policy HC-1.6 Compatibility Between Uses. Provide for urban edge transitions that protect existing rural residential and agricultural uses from new development.

Community Farming and Agriculture

Objective CF-1 Conserve strategic farmland outside the Southeast Development Area most likely to sustain economically viable agriculture over the long term. While the efficient,

compact development pattern of the SEDA Specific Plan reduces development pressure on surrounding agricultural land, it must be bolstered by policies that directly limit farmland conversion. These policies require inter-governmental coordination between the cities of Fresno, Sanger, Clovis, Fresno County, and other neighboring cities.

Policy CF-1.1 Efficient Land Use. Reduce development pressure on farmland outside the City of Fresno Sphere of Influence (SOI) by adopting the compact, efficient land use pattern of the SEDA Specific Plan. The SEDA Plan clusters homes and jobs at more than twice the density of current trend development.

Policy CF-1.2 Future Growth Planning. Support planning efforts that channel new growth to areas already committed to urban uses inside the current SOIs of incorporated cities in Fresno County.

Policy CF-1.3 Conversion of Farmland to Nonagricultural Uses. The City of Fresno will strongly discourage the conversion of strategic farmland outside its current SOI.

- **Strategic Farmland Mapping Project.** Support the Strategic Farmland Mapping Project conducted by the Fresno Council of Governments to identify the ‘best’ or most strategic locations to preserve farmland outside the current SOIs of incorporated cities in Fresno County.

Policy CF-1.4 Agricultural Farm Buffer. Establish an agricultural farm belt along the eastern edge of the SEDA. Farm belts provide opportunities to link agricultural land preservation and increased urban efficiency with local food production in ways that positively support local economies, farms, and farmers.

Objective CF-2 Create a long-term transition zone between urban uses in the City of Fresno and agricultural land in Fresno County. Buffering urban and adjoining agricultural land uses reduce conflicts that can arise due to noise, pollution, or traffic.

Policy CF-2.1 Rural Cluster Districts. Establish Rural Cluster Districts at the eastern edge of the site, as depicted in the SEDA Plan. Rural clusters consist of clustered residential development surrounded by common land held under easements for agricultural or recreational use.

- **Rural cluster farming.** Allow small-scale and community farming Rural Cluster Districts.

Policy CF-2.2 Passive Recreation. Encourage the creation of regional trails and open spaces in Rural Cluster Districts that connect urban uses to agricultural uses with trails for pedestrians, bicyclists, and equestrians.

- **What is the role of rural cluster development?**

- A transitional buffer. Urban areas and large agricultural operations cannot always sit side-by-side. Noise, dust, and pesticides from farms can pose health concerns for residents, while farmers need space to move machinery and goods. Rural clusters along the eastern edge of SEDA form a transition between the urban area and the agricultural lands beyond. An attractive residential option. Rural clusters offer a rural lifestyle within an environmentally responsible land use framework that promotes active farming and open space preservation.
- A means to preserve land. Rural cluster lands can be used for organic small-scale farming, equestrian activities, or other uses compatible with the nearby homes. The vast majority of the land is preserved as viable agricultural land or open space.

Objective CF-3 Promote community farming to provide opportunities for entrepreneurs and families to grow food for commercial and household production. Community farming is intended, in part, to diversify agriculture and make the residents of the Southeast Development Area stakeholders in the success of Fresno County agriculture.

Policy CF-3.1 Organic and Pesticide-Free Farming. Promote ecologically sensitive farming methods that are safe for farm workers, consumers, and residents by restricting pesticide use and promoting integrated pest management practices within the SEDA.

Policy CF-3.2 Small Farms. Create opportunities for entrepreneurs to grow food for commercial production on small plots of land (2 to 20 acres) that can provide economic opportunities for current and future Fresno residents.

- **Location.** Small farms in the SEDA should be located adjacent to and within open space corridors and within Rural Cluster Districts. If located within a Planned Development or Multi-Family Residential Complex, the Homeowner's Association and/or property management company shall be responsible for the site and shall designate a liaison between the property owner(s) and the City. (City of Fresno Development Code-15-2720).
- **Access.** Public access to small farms should be limited or completely restricted; fencing may be required.
- **Management.** Management structures of small farms shall be determined as appropriate. Small farms may be privately owned or managed by non-profit organizations.

Policy CF-3.3 Community Farming. Create and expand a viable community farming program that promotes an appreciation of food and local ecology, instills a sense of stewardship and community, and provides a recreational activity.

- **Community/Neighborhood Gardens.** Create and support neighborhood gardens within local communities. Neighborhood gardens, such as Yo'Ville Community

Garden in Southwest Fresno, are woven into the fabric of centers and residential areas, providing households with opportunities to grow some of their own produce and meet with other members of the community.

- **Location.** Neighborhood gardens shall be integrated into Neighborhood Centers, open spaces, and other locations that place them within walking distance of most residents' homes.
 - **Access.** Access to community spaces can vary. Gardens can be open to the public, or only to designated users.
 - **Management.** Management structures of community spaces shall be determined as appropriate. Neighborhood gardens can be owned by a city or county agency or by a private landowner, and operated by a neighborhood collective, community garden association, non-profit, or city/county parks and recreation department that leases small plots of the garden to community members. Some neighborhood gardens are independent entities, while some jurisdictions have neighborhood garden programs that oversee all the gardens in a jurisdiction.
 - **Funding and staff assistance.** The City of Fresno shall encourage neighborhood organizations to seek funding for the neighborhood garden program and/or facilitate assistance through the Fresno Parks, After School, Recreation, and Community Services Department or other agency/organization.
- **School Gardens.** Support and foster the integration of school gardens within neighborhood schools, such as the school garden located at Kepler Neighborhood School in Downtown Fresno. School gardens can serve as outdoor classrooms where students learn about soil, botany, natural cycles, nutrition, and basic gardening principles in a hands-on setting.
 - **Location.** School gardens should be located on school grounds, or within a very short walk of a school. When possible, school gardens should be planned upon new school construction in order to maximize joint-use opportunities with the City of Fresno Parks, After School, Recreation, and Community Services Department.
 - **Access.** Access should be controlled based on school district policies.
 - **Management.** Management structures shall be determined as appropriate. School gardens are typically managed by at least one garden coordinator who works closely with school administration or one or more dedicated teachers.
 - **School gardens working group.** Create a working group of teachers, students, and residents to explore the development of school garden programs in the Clovis and Sanger Unified School Districts.
 - **Community Orchards.** Support and preserve community orchards for both new and existing orchards within the SEDA. Community orchards can be integrated into the community's open space network, serving as park-like features and enhancing connections to agriculture.

- **Location.** Community orchards can be integrated into public open spaces or associated with private development.
- **Access.** Community orchards should be unfenced, with high levels of public access.
- **Management.** Management structures shall be determined as appropriate. In a typical model, residents help to care for the orchards and pay fees to fund professional gardeners.

Objective CF-4 Support Fresno agriculture, agricultural industries, and farm employees through economic development, educational training, and social programs within the Southeast Development Area.

Policy CF-4.1 Economic Competitiveness. Support efforts to promote and market agricultural products to maintain the long-term viability of Fresno-area farmers.

- **Direct Marketing.** Implement direct marketing of locally-grown produce from Fresno County and the Southeast Development Area through farmer's markets, community-supported agricultural programs, farm-to-restaurant- programs, produce stands, and other mechanisms.
- **Branding of local produce.** Utilize the opportunities in SEDA to support and establish Fresno as a center for locally-grown produce serving the Central Valley and California. Establish a "Fresno Grown" brand and support the "California Grown" program to promote locally-grown produce.
- **Agricultural Tourism.** Encourage agricultural tourism in the SEDA to educate visitors and generate income and support for farms.
- **Value-Added Process and Distribution.** Provide the opportunity for area farmers to utilize Flexible Research and Development districts for agricultural processing and distribution.

Policy CF-4.2 Educational Training. Support education and technical assistance for farm employees and aspiring farm owners through direct relationships with educational and non-profit institutions.

- **Public Institutions.** Encourage public institutions, including Fresno State University, the State Center Community College District, and other educational institutions, to provide assistance and training to farm employees.
- **Non-Profit Institutions.** Develop relations with non-profit agricultural training organizations and encourage those organizations to locate in the Southeast Development Area.

Policy CF-4.3 Farm Worker Housing and Social Services. Encourage the long-term economic viability of Fresno County agriculture by supporting the housing and social service needs of farm workers.

- **Housing.** Provide safe, affordable, efficient housing for farm workers, permitting housing on agricultural lands and other appropriate sites within the current Sphere of Influence (refer to the General Plan Housing Element).
- **Social Services.** Encourage organizations that support farm workers through family assistance programs, translation assistance, financial literacy training, medical assistance, and other services, to locate within the Southeast Development Area.

Policy CF-4.4 Strategic Plan for Agriculture. Encourage the long-term economic viability of Fresno County agriculture by creating a strategic plan that comprehensively addresses the needs of farmers and farmworkers. The plan should be developed in partnership with the County and private agricultural institutions. The plan should focus on, but is not limited to:

- Develop a pathway for protection of agricultural land at risk of conversion to nonagricultural uses through a review of why and to what extent agricultural land is being converted to other uses.
- Identify how to support agricultural land conservation and what economic, environmental, and public health co-benefits arise from conservation.
- Analyze the existing agricultural land base and its function in the regional food system.
- Recognize and protect environmental co-benefits of conserving agricultural lands and analyze how to reduce greenhouse gas emissions.
- Identify the benefit of agricultural land for priority populations such as beginning or Veteran farmers and ranchers; residents of disadvantaged or low-income communities; or California Native American Tribes.

Fresno Municipal Code

City of Fresno Zoning Ordinance

Chapter 15 of the Municipal Code outlines the City's Zoning Ordinance, which provides a guide for the physical development of the City in order to achieve the arrangement of land uses depicted in the approved General Plan, as well as implement goals, objectives, and policies of the approved General Plan. There are zoning designations related to agricultural or forestry use in the City's Zoning Ordinance, including Residential Single-Family District, (RE and RS-1 through RS-5) Residential Multi-Family (RM-1 through RM-3 and RM-MH), Light Industrial (IL), Heavy Industrial (IH), and Open Space (OS).

3.2.4 - Methodology

The proposed project was evaluated for potential impacts on agriculture resources resulting from implementation of the proposed project through a review of applicable plans and policies. FirstCarbon Solutions (FCS) personnel reviewed resources from the California Department of Conservation and also reviewed aerial photographs, topographical maps, and street maps to identify surrounding land uses and evaluate potential impacts from future development that may occur

pursuant to the Fresno SEDA Specific Plan. The General Plan was reviewed to confirm applicable land use, zoning, and policies related to agricultural land uses.

3.2.5 - Impacts and Mitigation Measures

Significance Criteria

The City utilizes the criteria in CEQA Guidelines Appendix G, to determine whether impacts to agriculture and forestry resources are significant environmental effects.

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts to resources are significant. These questions reflect the input of planning and environmental professionals at the Governor's Office of Planning and Research and the California Natural Resources Agency, based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. Accordingly, the City has derived its significance criteria, based, in part, on the questions posed in Appendix G. These significance criteria are as follows:

The proposed project would have a significant effect on agriculture or forestry resources if the project would:

- 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 nonagricultural 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 Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 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 nonagricultural use or conversion of forest land to non-forest use.

Impact Evaluation

Convert Farmland to Nonagricultural Use

Impact AG-1:	The proposed project would 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 nonagricultural use.
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According to the FMMP California Important Farmland Finder, as shown in Exhibit 3.2-1, there are approximately 2,475 acres of land designated as Prime Farmland, approximately 1,352 acres of Farmland of Statewide Importance, approximately 1,189 acres of land designated as Farmland of

Local Importance, and approximately 1,725 acres of land designated as Unique Farmland scattered throughout the Plan Area.⁴ The remainder of the Plan Area has a variety of designations, including approximately 337 acres of Urban Built-Up Land and approximately 1,536 acres of Rural Residential Land. As previously discussed, about half of the land in the Plan Area, approximately 5,000 acres, contain agricultural uses. Therefore, buildout of the Specific Plan would occur on land with soil types designated by the FMMP as farmland.

The Specific Plan does not contemplate or approve any specific development but rather provides a framework for future development within the Plan Area. Agricultural preservation is a guiding principle behind the planning and design of the Specific Plan, and Plan buildout would include components designed to preserve the continuity and viability of surrounding land for agricultural uses and open space and to integrate community-scale farming and agriculture. Furthermore, the proposed project's objectives include integrating small farms, community gardens, and farmers' markets into neighborhoods, schools, and town centers and creating a buffer that includes rural homes, organic farming, and open spaces to serve as a transition between the Plan Area and commercial agriculture to the east. However, the proposed project would facilitate future development of housing within the Plan Area and, as a result, would result in the conversion of Prime Farmland, Farmland of Local Importance, and Unique Farmland to nonagricultural uses.

To counter the effects of agricultural conversion, the Specific Plan includes a policy framework to support the integration of agriculture within the urban sphere. Programs that would be integrated into the Specific Plan may include school and neighborhood gardens, community orchards, agricultural education centers, and small farming operations in green belts and on the buffer edge. Furthermore, the Specific Plan includes policies to address land use compatibility through a Buffer District. Buffer Districts act as a transitional buffer between the urban areas of the Plan Area and larger-scale agricultural uses. Unlike the patchwork of rural ranchette development that is typically found at the rural outskirts of cities, the Buffer District would discourage outward sprawl by clearly delineating the urban-rural edge. Therefore, the policies included in the Specific Plan would directly limit farmland conversion and thereby help to preserve agriculture in the Plan Area.

Further, the proposed project would comply with the General Plan, which includes several policies intended to protect agricultural uses in the City and SOI. Policy RC-9-a directs the City to work with the Counties of Fresno and Madera, the City of Clovis, and other public agencies to conserve agricultural land resources. Additionally, Policy RC-9-b defines when residential and commercial development on unincorporated agricultural land should be prohibited and Policy RC-9-c describes implementation of the Farmland Preservation Program.

Additionally, the proposed project would implement MM AG-1, which requires future developments within the Plan Area to evaluate and mitigate the potential loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland by utilizing the Land Evaluation and Site Assessment (LESA) Model and 1:1 conservation easements, or other recorded instruments, to mitigate the loss of farmland. If the City adopts a Farmland Preservation Program pursuant to Fresno General Plan Policy

⁴ California Department of Conservation. 2022. California Important Farmland Finder. Available: <https://maps.conservation.ca.gov/DLRP/CLIFF/>. Accessed April 28, 2022.

RC-9-c, MM AG-1 states that project proponents may compensate for the loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland by complying with the adopted Farmland Preservation Program.

However, while implementation of MM AG-1 would reduce the degree of potential impacts associated with future development under the Specific Plan, the conversion of Farmland to nonagricultural uses would still occur. Therefore, this impact would be significant and unavoidable even with implementation of available mitigation.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AG-1 Prior to initiation of grading activities, project proponents shall compensate for the loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland within the Fresno Southeast Development Area Specific Plan Area (Plan Area) by preserving an equivalent type and quantity of land at a 1:1 ratio through recordation of a conservation easement, or other recorded instrument, such as a covenant or deed that restricts the preserved land in perpetuity to agricultural uses.

The acreage and type of land use to compensate for the loss of farmland shall be determined using the Land Evaluation and Site Assessment (LESA) Model. The LESA Model evaluates measures of soil resource quality, a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands.

In the alternative, if the City adopts a Farmland Preservation Program pursuant to Fresno General Plan Policy RC-9-c, project proponents may compensate for the loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland by complying with the adopted Farmland Preservation Program.

Level of Significance After Mitigation

Significant and unavoidable impact.

Conflict with Existing Zoning or Williamson Act Contract

Impact AG-2: **The proposed project would conflict with existing zoning for agricultural use, or a Williamson Act Contract.**

The Plan Area does not contain land designated for agricultural use by the General Plan. However, as shown in Exhibit 3.2-2, there are parcels within the Plan Area that are currently under Williamson Act Contracts. As provided in Exhibit 2-2, the Specific Plan would designate the majority of land within the Plan Area that is under Williamson Act Contract for nonagricultural land uses (such as residential and regional and community center uses). Therefore, implementation of the proposed project could conflict with existing Williamson Act Contracts because non-agricultural uses would be

allowed on lands under a Williamson Act Contract and because project implementation would facilitate future development of nonagricultural land uses within the Plan Area.

However, Williamson Act Contract holders can continue commercial agriculture operations pursuant to the existing contract. Agricultural lands which do not hold an existing Williamson Act Contract may continue agricultural uses as a legal non-conforming use and under protections of the Fresno County Right-to-Farm Ordinance, as noted in Policy UF-1.6 of the Specific Plan.

The proposed project would also implement MM AG-1 as described above, which could reduce impacts related to Williamson Act Contract land in the event that there is overlap with Prime Farmland, Farmland of Statewide Importance, or Unique Farmland on future development sites. However, there are no feasible mitigation measures available that would reduce impacts to Williamson Act Contracts to less than significant levels, and therefore, project impacts would be significant and unavoidable.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement MM AG-1.

Level of Significance After Mitigation

Significant and unavoidable impact.

Forest Land and Timberland

Impact AG-3:	The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).
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As identified in the General Plan, no land within the City or SOI is used for forestry purposes and no land within the City or SOI is designated or zoned for forestry resources. Therefore, the Plan Area does not contain any forestry uses or land designated or zoned for forestry resources. Accordingly, the proposed project would not conflict with existing zoning for forest land uses or timberland zoned Timberland Production and would not conflict with any existing zoning for forest land or timberland, and there would be no impact associated with existing zoning of forest land.

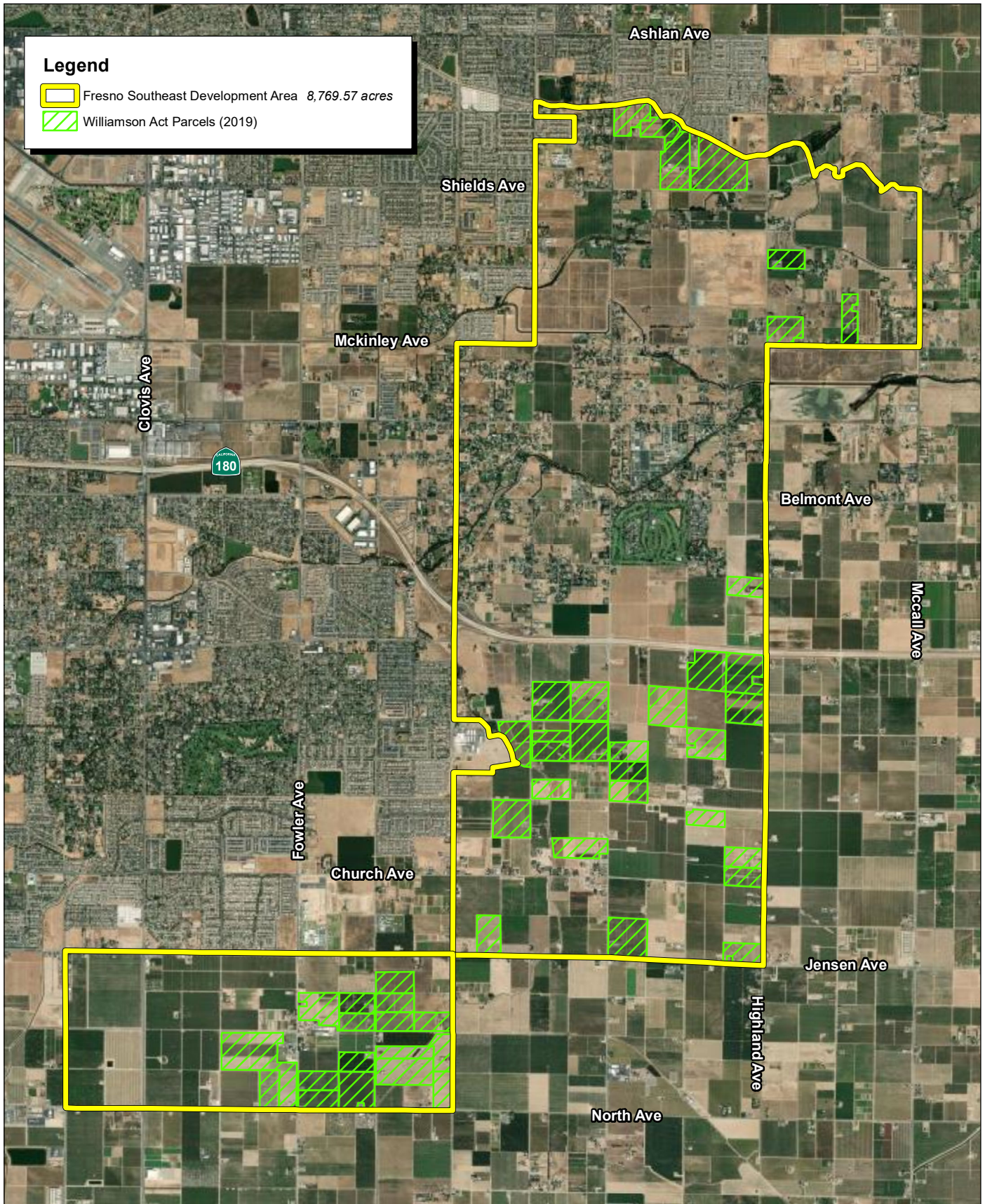
Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

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Source: ESRI Aerial Imagery. City of Fresno (2019). LSA

FIRSTCARBON
SOLUTIONS™



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Exhibit 3.2-2 Williamson Act Contract Parcels

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Conversion of Forestry Land

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

The proposed project would not involve the conversion of forest land because the Plan Area does not contain any forest land. Additionally, the proposed amendments to the land use map, rezoning of properties, and annexation would not cause any conversion of forest land to a non-forest use in another location. The proposed project would provide for increased density and accelerate housing production throughout the Plan Area and would not have any direct or indirect impacts on forest lands. Therefore, the proposed project would have no impact on forestry resources.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Existing Zoning—Forest Land

Impact AG-5: **The proposed project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use.**

As discussed under Impact AG-1, future development facilitated by the proposed project would result in the conversion of farmland to nonagricultural uses, which would result in a potentially significant impact. The proposed project would implement MM AG-1 which would require future projects that would convert farmland to nonagricultural uses to evaluate and mitigate impacts on a project-by-project basis through the implementation of 1:1 conservation easements until such time as a Farmland Preservation Program is adopted by the City. Project implementation would not result in other changes in the existing environment that would impact agricultural land outside of the Plan Area. Additionally, there is no designated forest land or Timberland in the Plan Area and therefore development in accordance with the proposed project would not impact forest land, as discussed under Impact AG-3 and Impact AG-4. Despite implementation of MM AG-1, impacts associated with conversion of Farmland to nonagricultural use would be significant and unavoidable.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement MM AG-1.

Level of Significance After Mitigation

Significant and unavoidable impact.

3.2.6 - Cumulative Impacts

The cumulative setting for agriculture and forestry resources includes the cities of Fresno, Clovis, and Sanger, and Counties of Fresno and Madera. This analysis evaluates whether impacts of the proposed Specific Plan, together with impacts of cumulative development, would result in a cumulatively significant impact with respect to agriculture and forestry resources. This analysis then considers whether incremental contribution of the impacts associated with implementation of the proposed Specific Plan would be significant. Both conditions must apply for cumulative effects to rise to level of significance.

Agriculture

Cumulative development is anticipated to convert agricultural uses to non-agricultural uses and conflict with existing agricultural zoning and Williamson Act Contracts. Development in accordance with the continued implementation of the approved General Plan would result in a significant impact on agricultural resources. To reduce potential cumulative impacts on agriculture uses, the approved General Plan includes Objective RC-9 and Policies RC-9-a through RC-9-c, which would reduce cumulative impacts to agricultural resources. In addition, the proposed project would incorporate MM AG-1, which requires all future development to evaluate and mitigate the loss of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on a project-by-project basis prior to grading activities to address the conversion of farmland to non-farmland uses. However, despite implementation of MM AG-1, cumulative impacts related to conversion of agricultural land would remain significant. For these reasons, cumulative impacts to agricultural resources would be significant and unavoidable.

In addition, as identified under Impact AG-2, development consistent with the proposed Specific Plan could conflict with existing agricultural zoning and land under Williamson Act Contracts and there is no feasible mitigation that would reduce this impact to less than significant. Therefore, the proposed project's incremental contribution to the conversion of farmland is cumulatively considerable. Thus, cumulative impacts related to the conversion of Williams Act Contract land would be significant and unavoidable.

Forestry

No cumulative impacts would occur to forestland because there is no identified or zoned forestland in the geographic scope of cumulative projects. Given the location of the proposed project and the surrounding area and the lack of any forestland or land zoned as forest, the proposed project would not contribute to any cumulative impact.

Level of Cumulative Significance Before Mitigation

Potentially significant impact.

Cumulative Mitigation Measures

Implement MM AG-1.

Level of Cumulative Significance After Mitigation

Significant and unavoidable impact.

3.3 - Air Quality

This section describes existing air quality conditions regionally and locally as well as the relevant regulatory framework. This section also evaluates the possible impacts related to air quality that could result from implementation of the proposed project. Information included in this section is based on project-specific air quality modeling results utilizing California Emissions Estimator Model (CalEEMod) Version 2020.4.0. Complete modeling output is provided in Appendix B.

Two public comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to air quality.

- The San Joaquin Valley Air Pollution Control District (Valley Air District) made the following comments:
 - Recommends that the PEIR incorporate strategies that reduce Vehicle Miles Traveled (VMTs) and require the cleanest available heavy-duty trucks and vehicles, including zero and near-zero technologies.
 - Recommends the incorporation of strategies that will advance implementation of the best practices related to the siting, design, construction, and operation of freight facilities to minimize health impacts on nearby communities.
 - Provides general recommendations regarding disclosure of air quality impacts.
 - Provides health risk reduction strategies.
 - Provides resources to assist with identifying mitigation measures.
- A group letter from the Leadership Council for Justice & Accountability, the Central California Environmental Justice Network, the Fresno Building Healthy Communities, and Fresno Barrios Unidos recommended that the City of Fresno, as the Lead Agency:
 - Thoroughly assess the impacts that the proposed project may have on air quality for Southeast Fresno residents; and
 - Adopt enforceable mitigation measures to minimize those impacts to the fullest extent possible.

3.3.1 - Environmental Setting

The proposed project is located in unincorporated Fresno County, adjacent to the City of Fresno's municipal boundaries, within the San Joaquin Valley Air Basin (SJVAB). The SJVAB consists of Kings, Madera, San Joaquin, Merced, Stanislaus, and Fresno counties, as well as a portion of Kern County. The local agency with jurisdiction over air quality in the SJVAB is the Valley Air District. 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 SJVAB.

San Joaquin Valley Air Basin

The information in this section is primarily from the Valley Air District's 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 to disperse pollutants and can channel air from upwind areas that transports pollutants to downwind areas. The Valley Air District covers the entirety of the SJVAB. The SJVAB 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

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 SJVAB has an "inland Mediterranean" climate and is characterized by long, hot, dry summers and short, foggy winters. Mediterranean climates are defined by sparse rainfall, which occurs mainly in winter, while summers are hot and dry. Summertime temperatures in the SJVAB often exceed 100°F. The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in temperature inversions in the valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface. Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500 to 3,000 feet). Wintertime high-pressure events can often last many weeks, with surface temperatures lowering to the 30°F (degrees Fahrenheit) range. During these events, fog can be present and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutants to a few hundred feet.³

Wind

Wind speed and direction play an important role in dispersion and transport of air pollutants. For example, wind at the surface and aloft can disperse pollution by mixing and transporting it to other locations.

Winds in the SJVAB most frequently blow from the northwest, and the region's mountain ranges restrict air movement and channel the air mass toward the southeastern end of the valley. The general wind patterns in the SJVAB start with marine air from the San Francisco Bay that flow into the SJVAB from the San Joaquin River Delta and over the Altamont Pass and Pacheco Pass. Then, winds flow along the valley, over the Tehachapi Pass, and into the Southeast Desert Air Basin. This wind pattern contributes to transporting pollutants from the Sacramento Valley and the Bay Area

¹ San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impact.

² San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. 2015 Plan for the 1997 PM 2.5 Standard.

³ Ibid.

into the SJVAB. During the winter, many days are marked by air stagnation events where winds are very weak, which can result in limited transport of pollutants.

Temperature

Sunlight can be a catalyst in the formation of some air pollutants (such as ozone). Solar radiation and high temperature are particularly important in the chemistry of ozone formation. Photochemical air pollution (primarily ozone) is produced by the atmospheric reaction of organic substances (such as volatile organic compounds [VOCs]) and nitrogen dioxide (NO₂) under the influence of sunlight. Ozone concentrations are very dependent on the amount of solar radiation, especially during late spring, summer, and early fall. Ozone levels typically peak in the afternoon as the temperatures are highest and the land has absorbed most of the solar radiation during the day. After the sun goes down, the chemical reaction between nitrous oxides and ozone begins to dominate. This reaction tends to scavenge and remove the ozone in the metropolitan areas through the early morning hours, resulting in the lowest ozone levels, possibly reaching zero, at sunrise in areas with high nitrogen oxides emissions. At sunrise, nitrogen oxides tend to peak, partly due to low levels of ozone at this time and also due to the morning commuter vehicle emissions of nitrogen oxides. Generally, the higher the temperature, the more ozone is formed, since reaction rates increase with temperature. However, extremely hot temperatures can “lift” or “break” the inversion layer. Typically, if the inversion layer does not lift to allow the buildup of contaminants to be dispersed, the ozone levels will peak in the late afternoon. If the inversion layer breaks and the resultant afternoon winds occur, the ozone will peak in the early afternoon and decrease in the late afternoon as the contaminants are dispersed or transported out of the SJVAB. Ozone levels are low during winter periods when there is much less sunlight to drive the photochemical reaction.⁴

Precipitation

Precipitation and fog may reduce or limit some pollutant concentrations by cleansing the air of pollutants and depositing them on the surface. In addition, ozone formation requires sunlight, and clouds and fog can block the required solar radiation. However, atmospheric moisture can also increase pollution levels. In fog with less water content, the moisture acts to form secondary ammonium nitrate particulate matter. This ammonium nitrate is part of the valley’s particulate matter, including dust, 2.5 micrometers or less in diameter (PM_{2.5}) and particulate matter, including dust, 10 micrometers or less in diameter (PM₁₀) problem. Between winter storms, high pressure and light winds allow cold, moist air to pool on the SJVAB floor, which creates strong low-level temperature inversions and very stable air conditions leading to tule fog. Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of PM_{2.5} and PM₁₀.⁵

Existing Air Quality Conditions

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the proposed project area. Table 3.3-1 summarizes published monitoring data from 2018 through 2020. The table displays data from the nearest monitoring stations to the proposed project site with available data:

⁴ San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. 2015 Plan for the 1997 PM 2.5 Standard.

⁵ San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impact.

- Fresno–Drummond Street Monitoring Station, 4706 East Drummond Avenue, Fresno, CA 93725
- Fresno–Foundry Park, 2482 Foundry Park Avenue, Fresno, CA 93706

The data shows that during the past few years, the project area has exceeded the standards for ozone (State and national), and PM₁₀ (State), and PM_{2.5} (federal). 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. No recent monitoring data for the area was available for carbon monoxide (CO) or sulfur dioxide (SO₂).

Generally, no monitoring is conducted for pollutants that are no longer likely to exceed Ambient Air Quality Standards (AAQS).

Table 3.3-1: Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2018	2019	2020
Ozone ¹	1 Hour	Max 1 Hour (ppm)	0.119	0.099	0.123
		Days > State Standard (0.09 ppm)	6	1	11
	8 Hours	Max 8 Hours (ppm)	0.097	0.080	0.091
		Days > Standard (0.070 ppm)	32	10	27
		Days > National Standard (0.075 ppm)	15	2	14
Carbon monoxide (CO)	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 (NO ₂) ¹	Annual	Annual Average (ppm)	0.013	ND	ND
	1 Hour	Max 1 Hour (ppm)	0.0759	0.0423	0.0668
		Days > State Standard (0.18 ppm)	0	0	0
Sulfur dioxide (SO ₂)	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
Inhalable coarse particles (PM ₁₀) ¹	Annual	State Annual Average (µg/m ³)	45.7	39.6	ND
	24 Hours	Highest Daily 24 Hours (µg/m ³)	154.8	181.3	349.2
		Days > State Standard (50 µg/m ³)	19	13	25
		Days > National Standard (150 µg/m ³)	0	1	1
Fine particulate matter (PM _{2.5}) ²	Annual	State Annual Average (µg/m ³)	ND	ND	20.3
	24 Hours	Highest Daily 24 Hours (µg/m ³)	ND	ND	157.2
		Days > National Standard (35 µg/m ³)	ND	ND	48

Air Pollutant	Averaging Time	Item	2018	2019	2020
<p>Notes:</p> <p>> = exceed</p> <p>µg/m³ = micrograms per cubic meter</p> <p>Bold = exceedance</p> <p>max = maximum</p> <p>National Standard = National Ambient Air Quality Standard</p> <p>ND = no data</p> <p>PM₁₀ = particulate matter, including dust, 10 micrometers or less in diameter</p> <p>PM_{2.5} = particulate matter including dust, 2.5 micrometers or less in diameter</p> <p>ppm = parts per million</p> <p>State Standard = California Ambient Air Quality Standard</p> <p>¹ Fresno—Drummond Street Monitoring Station, 4706 E. Drummond Ave., Fresno, CA 93725</p> <p>² Fresno—Foundry Park, 2482 Foundry Park Ave., Fresno, CA 93706</p> <p>Sources: California Air Resources Board (ARB). 2020. Trends Summary. Website: https://www.arb.ca.gov/adam/trends/trends1.php. Accessed May 25, 2022.</p> <p>California Air Resources Board (ARB). 2020. Top Four Summary. Website: https://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed May 25, 2022.</p>					

Air Quality Index

The health impacts of the various air pollutants of concern can be presented in several ways. The clearest comparison is to the State and federal ozone standards. If concentrations are below the standard, it is safe to say that no health impact would occur to anyone. When concentrations exceed the standard, impacts will vary based on the amount by which 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 of ozone at different concentrations.

Table 3.3-2: Air Quality Index and Health Effects from Ozone

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
AQI (51-100)—Moderate	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 55-70 ppb	<p>Health Effects Statements: Unusually sensitive individuals may experience respiratory symptoms.</p> <p>Cautionary Statements: Unusually sensitive people should consider limiting prolonged outdoor exertion.</p>
AQI (101-150)—Unhealthy for Sensitive Groups	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 71-85 ppb	<p>Health Effects Statements: Increasing likelihood of respiratory symptoms and breathing discomfort in active children and adults and people with respiratory disease, such as asthma.</p> <p>Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.</p>

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
AQI (151-200)—Unhealthy	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 86-105 ppb	<p>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.</p> <p>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.</p>
AQI (201-300)—Very Unhealthy	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 106-200 ppb	<p>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.</p> <p>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.</p>
<p>Notes: AQI = Air Quality Index ppb = parts per billion Source: Air Now. 2015. AQI Calculator: AQI to Concentration. Website: https://www.airnow.gov/aqi/aqi-calculator/. Accessed June 24, 2022.</p>	

Based on the AQI scale for the 8-hour ozone standard, the City of Fresno experienced no days in the last three years that would be categorized as Very Unhealthy (AQI 201-300) and as many as 15 days that were unhealthy for sensitive groups (AQI 150) or moderate (AQI 100) as measured at the Fresno–Drummond Street Station. The highest 1-hour maximum reading was 123 parts per billion (ppb) in 2020, compared with the 115-ppb cutoff point for unhealthy (AQI 200).

The other nonattainment pollutant of concern is PM_{2.5}. An AQI of 100 or lower is considered moderate and would be triggered by a 24-hour average concentration of 35.4 µg/m³, which is considered an exceedance of the federal PM_{2.5} standard. The Fresno–Foundry Park Station exceeded the standard for 48 days in 2020 and no data was available for 2018 or 2019. The highest concentration recorded at the Fresno–Foundry Park Station was 157.2 µg/m³ in 2020. The relationship of the AQI to health effects is shown in Table 3.3-3.

Table 3.3-3: Air Quality Index and Health Effects of Particulate Pollution

Air Quality Index/ 24-hour PM _{2.5} Concentration	Health Effects Description
AQI 51–100—Moderate	Sensitive Groups: Some people who may be unusually sensitive to particulates.

Air Quality Index/ 24-hour PM _{2.5} Concentration	Health Effects Description
Concentration 12.1-35.4 µg/m ³	<p>Health Effects Statements: Unusually sensitive people should consider reducing prolonged or heavy exertion.</p> <p>Cautionary Statements: Unusually sensitive people: Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easier.</p>
AQI 101–150—Unhealthy for Sensitive Groups	<p>Sensitive Groups: Sensitive groups include people with heart or lung disease, older adults, children, and teenagers.</p>
Concentration 35.5-55.4 µg/m ³	<p>Health Effects Statements: Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly.</p> <p>Cautionary Statements: Sensitive groups: Reduce prolonged or heavy exertion. It is OK to be active outside but take more breaks and do less intense activities. Watch for symptoms such as coughing or shortness of breath. People with asthma should follow their asthma action plans and keep quick relief medicine handy. If you have heart disease: Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.</p>
AQI 151–200—Unhealthy	<p>Sensitive Groups: Everyone</p>
Concentration 55.5-150.4 µg/m ³	<p>Health Effects Statements: Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in general population.</p> <p>Cautionary Statements: Sensitive groups: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling. Everyone else: Reduce prolonged or heavy exertion. Take more breaks during outdoor activities.</p>
AQI 201-300—Very Unhealthy	<p>Sensitive Groups: Everyone</p>
Concentration 150.5-250.4 µg/m ³	<p>Health Effects Statements: Significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant increase in respiratory effects in general population.</p> <p>Cautionary Statements: Sensitive groups: Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better. Everyone else: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling to a time when air quality is better.</p>
<p>Notes: µg/m³ = micrograms per cubic meter AQI = Air Quality Index Source: Air Now. 2015. AQI Calculator: AQI to Concentration. Website: https://www.airnow.gov/aqi/aqi-calculator/. Accessed June 24, 2022.</p>	

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are considered sensitive receptors to air pollution because residents, including children and the elderly, tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

Project Site and Vicinity

Sensitive receptors exist within and adjacent to the proposed project site. The majority of sensitive receptors would be residential land uses to the north and west located within the City of Fresno. Specifically, the sensitive receptors located within the proposed project boundaries and closest to the proposed project site include:

- Lone Star Elementary School
- Sequoia Elementary School
- Sanger West High School
- Residential subdivisions located north of East Jensen Avenue and west of South Temperance Avenue
- Residential subdivisions located west of North Locan Avenue

Existing Air Pollutant Emissions

Project Site Vicinity

In the proposed project vicinity, the primary sources of air pollutant emissions would be mobile vehicles traveling along local roadways and agricultural activity.

Project Site

Similar to the proposed project vicinity, the primary source of air pollutant emissions within the proposed Plan Area would be mobile vehicles traveling along local roadways and agricultural activity.

Attainment Status

The EPA and the California Air Resources Board (ARB) designate air basins where AAQS 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 values 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 Air Quality Management Plans (AQMPs) prepared by the Valley Air District provide the framework for the SJVAB to achieve attainment of the State and federal AAQS through the State Implementation Plan (SIP). Areas are classified as attainment or nonattainment areas for particular pollutants depending on whether they meet the AAQS. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

The current attainment designations for the SJVAB are shown in Table 3.3-4 The SJVAB is currently classified as a federal and State nonattainment area for ozone, a federal nonattainment area for PM_{2.5}, and a State nonattainment area for PM₁₀.

Table 3.3-4: San Joaquin Valley Air Basin Attainment Status

Pollutant	State Status	National Status ¹
Ozone (1-hour) ^a	Nonattainment	—
Ozone (8-hours)	Nonattainment	Nonattainment
Carbon monoxide	Attainment	Attainment
Nitrogen dioxide (annual)	Attainment	Unclassified
Nitrogen dioxide (1-hour)	Attainment	Attainment
Sulfur dioxide	Attainment	Attainment
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
Lead	Attainment	Attainment
Hydrogen Sulfide (H ₂ S)	Unclassified	—
Sulfates	Attainment	—
Notes: PM ₁₀ = particulate matter less than 10 microns in diameter PM _{2.5} = particulate matter less than 2.5 microns in diameter ¹ On June 15, 2005, the 1-Hour Ozone National Ambient Air Quality Standards (NAAQS) was revoked for all areas except the 8-Hour Ozone nonattainment Early Action Compact areas. Source: California Air Resources Board (ARB). 2022. Maps of State and Federal Area Designations. Website: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations . Accessed July 6, 2022.		

3.3.2 - 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.⁶ 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	Particulate matter (PM ₁₀ and PM _{2.5})
Nitrogen dioxide (NO ₂)	Carbon monoxide (CO)
Lead (Pb)	Sulfur dioxide (SO ₂)

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.

The CAA also requires each state to prepare an air quality control plan referred to as a SIP. The federal CAA amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins, as reported by their jurisdictional agencies.

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 the 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

⁶ United States Environmental Protection Agency (EPA). 2021. NAAQS Table. Website: <https://www.epa.gov/criteria-air-pollutants/naaqs-table>. Accessed June 24, 2022.

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 AAQS, the most relevant effects, the properties, and sources of the pollutants are summarized in Table 3.3-5.

Several pollutants listed in Table 3.3-5 are not addressed in this analysis. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed as PM₁₀ and PM_{2.5} and thus evaluated accordingly (see below). In addition, given the nature of the proposed uses, no components of the proposed project would result in vinyl chloride or hydrogen sulfide emissions in any substantial quantity and thus are not addressed further.

Table 3.3-5: 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 wood-burning, 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 ₂ O, N ₂ O ₃ , N ₂ O ₄ , and N ₂ O 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 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 that 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 whether 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	<ul style="list-style-type: none"> 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, (1 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				
Sulfates	24 Hours	25 µg/m ³	—	<ul style="list-style-type: none"> (a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; 	The sulfate ion is a polyatomic anion with the empirical formula	Sulfates are particulates formed through the photochemical

Air Pollutant	Averaging Time	California Standard	Federal Standard ^a	Most Relevant Effects from Pollutant Exposure	Properties	Sources
				(c) aggravation of cardiopulmonary disease; (d) vegetation damage; (e) degradation of visibility; (f) property damage.	SO ₄ ²⁻ . Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	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 ₂ S) 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 (AAQS) 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 AAQS 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.
<p>Notes:</p> <p>ppm = parts per million (concentration)</p> <p>µg/m³ = micrograms per cubic meter</p> <p>Annual = Annual Arithmetic Mean</p> <p>30-day = 30-day average</p> <p>Quarter = Calendar quarter</p> <p>^a Federal standard refers to the primary National Ambient Air Quality Standard (NAAQS), 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 SO₂, 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.</p> <p>^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).</p> <p>^c On June 2, 2010, a new 1-hour SO₂ 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 SO₂ 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.</p> <p>^d Visibility-reducing particles: In 1989, the California Air Resources Board (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.</p> <p>^e The 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.</p> <p>Sources:</p> <p>California Air Resources Board (ARB). 2016. Ambient Air Quality Standards. May 4.</p> <p>California Air Resources Board (ARB). 2022. Vinyl Chloride and Health. Website: https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health. Accessed June 29, 2022.</p> <p>California Office of Environmental Health Hazard Assessment (OEHHA). 2001. Health Effects of Diesel Exhaust.</p> <p>National Archives and Records Administration. 2009. Part II, United States Environmental Protection Agency. 40 Code of Federal Regulations Parts 50 and 58, Primary National Ambient Air Quality Standard (NAAQS) for Nitrogen Dioxide; Proposed Rule. July 15.</p> <p>National Toxicology Program. 2016. Report on Carcinogens, 14th Edition; U.S. Department of Health and Human Services, Public Health Service. Benzene. November 3.</p> <p>National Toxicology Program. 2016. Report on Carcinogens, 14th Edition; U.S. Department of Health and Human Services, Public Health Service. Diesel Exhaust Particles. November 3.</p> <p>South Coast Air Quality Management District (South Coast AQMD). 2007. Final 2007 Air Quality Management Plan. June.</p> <p>United States Environmental Protection Agency (EPA). 2021. Nitrogen Dioxide (NO₂) Pollution. Basic Information about NO₂. Website: https://www.epa.gov/no2-pollution/basic-information-about-no2#What%20is%20NO2. Accessed June 29, 2022.</p>						

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.⁷ 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 PM₁₀ database, ambient PM₁₀ 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.⁸ 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 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 SJVAB 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 were projected to decrease to 6 tons per day by 2015, 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

⁷ California Air Resources Board (ARB). 1998. Initial Statement of Reasons for Rulemaking, Staff Report, Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant.

⁸ 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 June 24, 2022.

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.⁹

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.

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.

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 SIPs, provides research and guidance for air pollution programs, and sets the federal standards, or NAAQS, described earlier.

An SIP 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 SIP 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 SIP 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 SIP. 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 SJVAB 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

⁹ 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 June 24, 2022.

implementation process that includes making attainment designations and the development of new plans to attain the standard based on each area's designation.

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

Assembly Bill 98 Planning and Zoning Logistics Use Truck Routes

Assembly Bill (AB) 98, signed into law in September 2024, imposes new design and build standards for new or expanded logistics uses across California. AB 98 mandates several environmental and community health protections, including the installation of energy-saving features such as solar panels and electrical vehicle charging stations, the transition to zero-emission forklifts by 2030, and the establishment of buffer zones between warehouses and sensitive areas such as homes, schools, and parks. Additionally, AB 98 requires detailed truck routing plans to avoid residential areas and imposes specific requirements for warehouse design, parking, truck loading bays, landscaping buffers, entry gates and signage.

California Health and Safety Code Section 39655 and California Code of Regulations Title 17 Section 93000 (Substances Identified as Toxic Air Contaminants)

The ARB identifies substances as TACs as defined in Health and Safety Code Section 39655 and listed in Title 17, Section 93000 of the California Code of Regulations, "Substances Identified as toxic air contaminants." A 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. In general, for those TACs that may cause cancer, there are thresholds set by regulatory agencies below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the State and federal governments have set AAQS. According to the California Almanac of Emissions and Air Quality, the majority of the estimated health risk from TACs for the State of California can be attributed to relatively few compounds, the most important of which is DPM from diesel-fueled engines.

California 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 SIP. 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.¹⁰

California 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, the School Bus Program, and others.¹¹

California In-Use Off-Road Diesel Vehicle Regulation

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 were required to meet PM filter requirements beginning January 1, 2012, while lighter and older heavier trucks required replacement 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 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.¹²

¹⁰ California Air Resources Board (ARB). 2013. Advanced Clean Car Program. Website: <https://ww3.arb.ca.gov/cc/ccms/documents/ab1493.pdf?bay>. Accessed June 24, 2022.

¹¹ California Air Resources Board (ARB). 2013. The California Almanac of Air Quality and Emissions—2013 Edition. Website: <http://www.arb.ca.gov/aqd/almanac/almanac13/almanac13.htm>. Accessed June 24, 2022.

¹² California Air Resources Board (ARB). 2015. Truck and Bus Regulation. Website: <http://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation>. Accessed June 24, 2022.

California Airborne Toxic Control Measures for Asbestos

In July 2001, the ARB approved Airborne Toxic Control Measures (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. 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 (serpentine) 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. Review of the Department of Conservation maps indicates that no ultramafic rock has been found near the proposed project site or in the City of Fresno.

Diesel Risk Reduction Plan

The ARB Diesel Risk Reduction Plan 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 in 2020 by about 90 percent overall from year 2000 levels. The projected emission benefits associated with the full implementation of this plan, including federal measures, were reductions in DPM emissions and associated cancer risks of 75 percent by 2010 and 85 percent by 2020.¹³

Tanner Air Toxics Act and Air Toxics Hot Spots Information and Assessment Act

TACs in California are primarily regulated through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588), also known as the Hot Spots Act. To date, the ARB has identified more than 21 TACs and has adopted the EPA’s list of Hazardous Air Pollutants (HAPs) as TACs.

Carl Moyer Memorial Air Quality Standards Attainment Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program), a partnership between the ARB and local air districts, issues grants to replace or retrofit older engines and equipment with engines and equipment that exceed current regulatory requirements to reduce air pollution. Money collected through the Carl Moyer Program complements California’s regulatory

¹³ California Air Resources Board (ARB). 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles.

program by providing incentives to effect early or extra emission reductions, especially from emission sources in environmental justice communities and areas disproportionately affected by air pollution. The program has established guidelines and criteria for the funding of emissions reduction projects. Within the SJVAB, the Valley Air District administers the Carl Moyer Program. The program has established guidelines and criteria for the funding of emissions reduction projects and has established cost-effectiveness criteria for funding emission reductions projects, which under the final 2017 Carl Moyer Program Guidelines are \$30,000 per weighted ton of NO_x, ROG, and PM.¹⁴

Regional

San Joaquin Valley Air Pollution Control District

The primary role of the Valley Air District is to develop plans and implement control measures in the SJVAB to control air pollution. These controls primarily affect stationary sources such as industry and power plants. Rules and regulations have been developed by the Valley Air District to control air pollution from a wide range of air pollution sources. The Valley Air District also provides uniform procedures for assessing potential air quality impacts of proposed projects and for preparing the air quality section of environmental documents.¹⁵

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

Rule 2010—Permits Required. Rule 2010 requires operators of emission sources to obtain an authority to construct and permit to operate from the Valley Air District.

Rule 2201—New and Modified Stationary Source Review. This rule applies to any stationary/industrial equipment that emits regulated pollutants in amounts specified by the rule. Rule 2201 requires stationary source projects that exceed certain thresholds to install Best Available Control Technology (BACT) and to obtain emission offsets to ensure that growth in stationary sources on a cumulative basis will not result in an increase in emissions.

Rule 4002—National Emissions Standards for Hazardous Air Pollutants. The purpose of the rule is to incorporate the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations to protect the health and safety of the public from HAPs such as asbestos.

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.

¹⁴ California Air Resources Board (ARB). 2017. 2017 Carl Moyer Program Guidelines. April.

¹⁵ San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impact.

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.

Rule 4692—Commercial Charbroiling. The purpose of this rule is to limit VOC and PM-10 emissions from commercial charbroiling. New and existing businesses with charbroiling equipment are subject to this rule.

Rule 4901—Wood-Burning Fireplaces and Wood-Burning Heaters. The purposes of this rule are to limit emissions of carbon monoxide and particulate matter from wood-burning fireplaces, wood-burning heaters, and outdoor wood-burning devices, and to establish a public education program to reduce wood-burning emissions. All development that includes wood-burning devices are subject to this rule.

Regulation VIII—Fugitive PM₁₀ Prohibitions. Rules 8011-8081 are designed to reduce PM₁₀ emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout 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 9410—Employer Based Trip Reduction. The purpose of this rule is reduce VMT from private vehicles used by employees to commute to and from their worksites to reduce emissions of NO_x, VOC and PM. The rule would require larger employers (those with 100 or more eligible employees) to establish employee trip reduction programs to reduce VMT, reducing emissions associated with work commutes. The rule uses a menu-based Employer Trip Reduction Implementation Plan and periodic reporting requirements to evaluate performance on a phased-in compliance schedule.

Rule 9510—Indirect Source Review. This rule reduces the impact of NO_x and PM₁₀ emissions from growth within the SJVAB. 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 District-administered projects, or a combination of the two.

In addition to establishing control measures, the EPA requires states that have areas that do not meet the NAAQS to prepare and submit AQPs showing how the NAAQS will be met. If a state cannot show how the NAAQS will be met, then the state must show progress toward meeting the NAAQS in the SIP. The *2016 State Strategy for the State Implementation Plan* was adopted by ARB in March 2017,¹⁶ and the State is currently in the process of developing the *2022 State SIP Strategy*.¹⁷ In addition, ARB requires regions that do not meet CAAQS for ozone to submit AQPs that describe measures to attain the standard or show progress toward attainment. The following describes the air

¹⁶ California Air Resources Board (ARB). 2022. Implementation of the State SIP Strategy. Website: <https://ww2.arb.ca.gov/resources/documents/implementation-state-sip-strategy>. Accessed June 29, 2022.

¹⁷ California Air Resources Board (ARB). 2022. 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy). Website: <https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy>. Accessed June 29, 2022.

plans prepared by the Valley Air District which are incorporated by reference per California Environmental Quality Act (CEQA) Guidelines Section 15150.

Ozone Plans

The SJVAB is designated nonattainment of State and federal health-based air quality standards for ozone. Although the EPA revoked its 1979 1-hour ozone standard in June 2005, many planning requirements remain in place and the Valley Air District must still attain this standard before it can rescind CAA Section 185 fees. The Valley Air District's most recent 1-hour ozone plan, the 2013 Plan for the Revoked 1-hour Ozone Standard, demonstrated attainment of the 1-hour ozone standard by 2017. However, on July 18, 2016, the EPA published in the Federal Register a final action determining that SJVAB has attained the 1-hour ozone NAAQS based on the 2012 to 2014 3-year period, allowing nonattainment penalties to be lifted under federal CAA Section 179b.¹⁸

The EPA originally classified the SJVAB 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. ARB approved the plan in June 2007, and the EPA approved the request for reclassification to extreme nonattainment on April 15, 2010. The SJVAB 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. The District is currently in the process of developing a new attainment plan for the recently strengthened 2015 Ozone NAAQS of 70 ppb, with submittal required to EPA by August 2022.¹⁹

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.

PM₁₀ Plan

Based on PM₁₀ measurements from 2003 to 2006, EPA found that the SJVAB has reached federal PM₁₀ standards. On September 21, 2007, the Valley Air District's Governing Board adopted the 2007 PM₁₀ Maintenance Plan and Request for Redesignation. This plan demonstrates that the valley will continue to meet the PM₁₀ standard. EPA approved the document and on September 25, 2008, the SJVAB was redesignated to attainment/maintenance.²⁰

PM_{2.5} Plan

The Valley Air District adopted the 2012 PM_{2.5} Plan on December 20, 2012. This plan was approved by ARB on January 24, 2013. This plan will assure that the SJVAB will attain the 2006 PM_{2.5} National AAQS. The plan uses control measures to reduce NO_x, which also leads to fine particulate formation

¹⁸ San Joaquin Valley Air Pollution Control District (Valley Air District). 2022. Ozone Plans. Website: http://valleyair.org/Air_Quality_Plans/Ozone_Plans.htm. Accessed June 29, 2022.

¹⁹ Ibid.

²⁰ San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impact.

in the atmosphere. The plan incorporates measures to reduce direct emissions of PM_{2.5}, including a strengthening of regulations for various SJVAB industries and the general public through new rules and amendments. On August 19, 2021, the District's Governing Board approved the *Attainment Plan Revision for the 1997 Annual PM_{2.5} Standard* to establish a new attainment target for the 1997 annual PM_{2.5} standard of 2023.²¹

On June 30, 2020, EPA approved portions of the *2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards* and the *San Joaquin Valley Supplement to the 2016 State Strategy for the State Implementation Plan* related to the 2006 24-hour PM_{2.5} National AAQS of 35 µg/m³. Additionally, EPA granted an extension of the serious area attainment date for the 2006 PM_{2.5} NAAQS from December 31, 2019, to December 31, 2024. Federal review of portions of the plan that pertain to the other PM_{2.5} standards is ongoing.²²

Fresno Council of Governments

Fresno Council of Governments (Fresno COG) is responsible for regional transportation planning in Fresno County and participates in developing mobile source emission inventories used in air quality attainment plans.

Regional Transportation Plans/Sustainable Communities Strategy

Regional Transportation Plans (RTPs) address the mobility needed to keep the Fresno region moving and connected. Fresno COG 2018-2042 RTP charts the long-range vision of regional transportation in Fresno County through the year 2042. The RTP identifies existing and future transportation related needs while considering all modes of travel, analyzing alternative solutions, and identifying what can be completed with anticipated available funding for the projects and programs included within it. Senate Bill (SB) 375, which went into effect in 2009, added statutes to the California Government Code to encourage planning practices that create sustainable communities. It calls for each metropolitan planning organization to prepare a Sustainable Communities Strategy (SCS) as an integrated element of the RTP that is to be updated every 4 years. The SCS is intended to show how integrated land use and transportation planning can lead to lower greenhouse gas (GHG) emissions from autos and light trucks in support of ARB's GHG emission reduction targets.²³ At the time of this writing, the draft Fresno COG 2022-2046 RTP/SCS has not been adopted and so was not considered as a part of this analysis.

Transportation Conformity

Fresno COG must ensure that transportation plans and projects comply with federal transportation conformity. Transportation conformity is a way to ensure that federal funding and approval are given to those transportation activities that are consistent with air quality goals. It ensures that these transportation activities do not worsen air quality or interfere with the "purpose" of the SIP, which is to meet the NAAQS. Meeting the NAAQS often requires emissions reductions from mobile sources.

According to the CAA, transportation plans, programs, and projects cannot:

²¹ San Joaquin Valley Air Pollution Control District (Valley Air District). 2022. 2018 PM_{2.5} Plan for the San Joaquin Valley.

²² Ibid.

²³ Fresno Council of Governments (Fresno COG). 2022. Regional Transportation Plan, Chapter 1.

- Create new NAAQS violations;
- Increase the frequency or severity of existing NAAQS violations; or
- Delay attainment of the NAAQS.

In practice, AQPs include criteria pollutant emission budgets required for attainment of air quality standards by mandated deadlines. The budgets must not be exceeded considering projected growth in mobile source activity. Emissions from projected growth must not exceed the budgets in any year.

San Joaquin Valley Air Pollution Control District CEQA Thresholds of Significance

The Valley Air District provides guidance and thresholds for CEQA air quality and GHG analyses. As mentioned, the primary role of the Valley Air District is to develop plans and implement control measures in the San Joaquin Valley to control air pollution and meet CAAQS and NAAQS, including the provision of uniform procedures for assessing the potential air quality impacts of proposed projects for preparing the air quality section of environmental documents. The guidelines provide recommended procedures for evaluating potential air quality impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include, where available, significance criteria which may be relied upon to assist in making significance determinations.²⁴

The result of this guidance, as well as State regulations to control air pollution, is an overall improvement in the SJVAB. In particular, the Valley Air District's 2015 GAMAQI states the following:

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.

The Air Quality Guidelines for General Plans (AQGGP), adopted by the 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 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.²⁵

²⁴ San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impact.

²⁵ Ibid.

Local

City of Fresno General Plan

The City of Fresno General Plan was adopted in 2014. The General Plan contains the following elements, objectives, and policies that relate to air quality:

Urban Form, Land Use, and Design Element

Policy UF-1-c Identifiable City Structure. Focus integrated and ongoing planning efforts to achieve an identifiable City structure, comprised of a concentration of buildings, people, and pedestrian-oriented activity in Downtown; along a small number of prominent east-west and north-south transit-oriented, mixed-use corridors with distinctive and strategically located Activity Centers; and in existing and new neighborhoods augmented with parks and connected by multi-purpose trails and tree lined bike lanes and streets.

Objective UF-12 Locate roughly one-half of future residential development in infill areas—defined as being within the City on December 31, 2012—including the Downtown core area and surrounding neighborhoods, mixed-use centers and transit-oriented development along major BRT [Bus Rapid Transit] corridors, and other non-corridor infill areas, and vacant land.

Policy UF-12-a BRT Corridors. Design land uses and integrate development site plans along BRT corridors, with transit-oriented development that supports transit ridership and convenient pedestrian access to bus stops and BRT station stops.

Policy UF-12-b Activity Centers. Mixed-use designated areas along BRT and/or transit corridors are appropriate for more intensive concentrations of urban uses. Typical uses could include commercial areas; employment centers; schools; compact residential development; religious institutions; parks; and other gathering points where residents may interact, work, and obtain goods and services in the same place.

Policy UF-12-d Appropriate Mixed-Use. Facilitate the development of vertical and horizontal mixed-uses to blend residential, commercial, and public land uses on one site or adjacent sites. Ensure land use compatibility between mixed-use districts in Activity Centers and the surrounding residential neighborhoods.

Policy UF-12e Access to Activity Centers. Promote adoptions and implementation of standards supporting pedestrian activities and bicycle linkages from surrounding land uses and neighborhoods into Activity Centers and to transit stops. Provide for priority transit routes and facilities to serve the Activity Centers.

Policy UF-12-f Mixed-Use in Activity Centers. Update the Development Code to include use regulations and standards to allow for mixed-uses and shared parking facilities, including multi-story and underground parking facilities, within Activity Centers.

Objective UF-14 Create an urban form that facilitates multi-modal connectivity.

Policy UF-14-a Design Guidelines for Walkability. Develop and use design guidelines and standards for a walkable and pedestrian-scaled environment with a network of streets and connections for pedestrians and bicyclists, as well as transit and autos.

Policy UF-14-b Local Street Connectivity. Design local roadways to connect throughout neighborhoods and large private developments with adjacent major streets and pathways of existing adjacent development. Create access for pedestrians and bicycles where a local street must dead end or be designed as a cul-de-sac to adjoining uses that provide services, shopping, and connecting pathways for access to the greater community area.

Objective LU-2 Plan for infill development that includes a range of housing types, building forms, and land uses to meet the needs of both current and future residents.

Policy LU-2-a Infill Development and Redevelopment. Promote development of vacant, underdeveloped, and re-developable land uses within the City Limit where urban services are available considering the establishment and implementation of supportive regulations and programs.

Policy LU-2-b Infill Development for Affordable Housing. Consider a priority infill incentive program for residential infill development of existing vacant lots and underutilized sites within the City as a strategy to help to meet the affordable housing needs of the community.

Policy LU-3-c Zoning for High Density on Major BRT Corridors. Consider the adoption of supportive zoning regulations for compact development along BRT corridors leading to the Downtown Core that will not diminish the long-term growth and development potential for Downtown.

Policy LU-5-f High Density Residential Uses. Promote high-density residential uses to support Activity Centers and BRT Corridors, affordable housing and walkable access to transit stops.

Policy LU-6-d Neighborhood and Community Commercial Center Design. Plan for neighborhood mixed use and community commercial uses to implement the Urban Form concepts of the General Plan, promote the stability and identity of neighborhood and community shopping areas, and allow efficient access without compromising the operational effectiveness of the street system. Neighborhoods will be anchored by community commercial centers with a mix of uses that meet the area's needs and create a sense of place. Community commercial centers will be located within Activity Centers.

Policy LU-6-f Auto-Oriented Commercial Uses. Direct highway-oriented and auto-serving commercial uses to locations that are compatible with the Urban Form policies of

the General Plan. Ensure adequate buffering measures for adjacent residential uses noise, glare, odors, and dust.

Policy LU-8-b Access to Public Facilities. Ensure that major public facilities and institutions have adequate multi-modal access and can be easily reached by public transit.

Resource Conservation and Resiliency Element

Objective RC-4 In cooperation with other jurisdictions and agencies in the San Joaquin Valley Air Basin, take necessary actions to achieve and maintain compliance with State and federal air quality standards for criteria pollutants.

Policy RC-4-a Support Regional Efforts. Support and lead, where appropriate, regional, State and federal programs and actions for the improvement of air quality, especially the SJVAPCD's [San Joaquin Valley Air Pollution Control District] efforts to monitor and control air pollutants from both stationary and mobile sources and implement Reasonably Available Control Measures in the Ozone Attainment Plan.

Policy RC-4-b Conditions of Approval. Develop and incorporate air quality maintenance requirements, compatible with Air Quality Attainment and Maintenance Plans, as conditions of approval for General Plan amendments, community plans, Specific Plans, neighborhood plans, Concept Plans, and development proposals.

Policy RC-4-c Evaluate Impacts with Models. Continue to require the use of computer models used by SJVAPCD to evaluate the air quality impacts of plans and projects that require such environmental review by the City.

Policy RC-4-d Forward Information. Forward information regarding proposed General Plan amendments, community plans, Specific Plans, neighborhood plans, Concept Plans, and development proposals that require air quality evaluation, and amendments to development regulations to the SJVAPCD for their review of potential air quality and health impacts.

Policy RC-4-e Support Employer-Based Efforts. Support and promote employer implementation of staggered work hours and employee incentives to use carpools, public transit and other measures to reduce vehicular use and traffic congestion.

Policy RC-4-f Municipal Operations and Fleet Actions. Continue to control and reduce air pollution emissions from vehicles owned by the City operations and municipal operations and facilities by undertaking the following:

- Expand the use of alternative fuel, electric, and hybrid vehicles in City fleets.
- Create preventive maintenance schedules that will ensure efficient engine operation.
- Include air conditioning recycling and charging stations in the City vehicle maintenance facilities, to reduce freon gases being released into the atmosphere

and electrostatic filtering systems in City maintenance shops, when feasible or when required by health regulations.

- Use satellite corporation yards for decentralized storage and vehicle maintenance.
- Convert City-owned emergency backup generators to natural gas fuels whenever possible, and
- Create an advanced energy storage system.

Policy RC-4-j All Departments. Continue to develop and implement in all City departments, operational policies to reduce air pollution.

Policy RC-4-k Electric Charging. Develop standards to facilitate electric charging infrastructure in both new and existing public and private buildings, in order to accommodate these vehicles as the technology becomes widespread.

Policy RC-8-j Alternative Fuel Network. Support the development of a network of integrated charging and alternate fuel station for both public and private vehicles, and if feasible, open up municipal stations to the public as part of network development.

Healthy Communities Element

Policy HC-3-d Green Standards for Affordable Housing. Provide appropriate incentives for affordable housing providers, agencies, non-profit and market rate developers to use LEED® and CALGreen Tier 1 or Tier 2 standards or third party equivalents.

Policy HC-3-f New Drive-Through Facilities. Include in the Development Code design review to reduce vehicle emissions resulting from queued idling vehicles at drive-through facilities in proximity to residential neighborhoods.

Mobility and Transportation Element

Objective MT-3 Identify, promote and preserve scenic or aesthetically unique corridors by application of appropriate policies and regulations.

Policy MT-1-f Match Travel Demand with Transportation Facilities. Designate the types and intensities of land uses at locations such that related travel demands can be accommodated by a variety of viable transportation modes and support Complete Neighborhoods while avoiding the rerouting of excessive or incompatible traffic through local residential streets.

Policy MT-1-g Complete Streets Concept Implementation. Provide transportation facilities based upon a Complete Streets concept that facilitates the balanced use of all viable travel modes (pedestrians, bicyclists, motor vehicle and transit users), meeting the transportation needs of all ages, income groups, and abilities and providing mobility for a variety of trip purposes, while also supporting other City goals.

Policy MT-2-b Reduce Vehicle Miles Traveled and Trips. Partner with major employers and other responsible agencies, such the San Joaquin Valley Air Pollution Control District and

the Fresno Council of Governments, to implement trip reduction strategies, such as eTRIP, to reduce total vehicle miles traveled and the total number of daily and peak-hour vehicle trips, thereby making better use of the existing transportation system.

Policy MT-2-c Reduce VMT through Infill Development. Provide incentives for infill development that would provide jobs and services closer to housing and multimodal transportations corridors in order to reduce citywide Vehicle Miles Traveled (VMT).

Policy MT-2-g Transportation Demand Management and Transportation System Management. Pursue implementation of Transportation Demand Management and Transportation System Management strategies to reduce peak-hour vehicle traffic and supplement the capacity of the transportation system.

Objective MT-4 To establish and maintain a continuous, safe, and easily accessible bikeways system throughout the metropolitan area to reduce vehicle use, improve air quality and the quality of life, and provide public health benefits.

Policy MT-4-b Bikeway Improvements. Establish and implement property development standards to assure that projects adjacent to designated bikeways provide adequate right-of-way and that necessary improvements are constructed to implement the planned bikeway system shown on Figure MT-2 to provide for bikeways, to the extent feasible, when existing roadways are reconstructed; and alternative bikeway alignments or routes where inadequate right-of-way is available.

Policy MT-4-d Prioritization of Bikeway Improvements. Prioritize bikeway components that link existing separated sections of the system, or that are likely to serve the highest concentration of existing or potential cyclists, particularly in those neighborhoods with low vehicle ownership rates, or that are likely to serve destination areas with the highest demand such as schools, shopping areas, recreational and park areas, and employment centers.

Policy MT-5-a Sidewalk Development. Pursue funding and implement standards for development of sidewalks on public streets, with priority given to meeting the needs of persons with physical and vision limitations; providing safe routes to school; completing pedestrian improvements in established neighborhoods with lower vehicle ownership rates; or providing pedestrian access to public transportation routes.

Policy MT-5-b Sidewalk Requirements. Assure adequate access for pedestrians and people with disabilities in new residential developments per adopted City policies, consistent with the California Building Code and the Americans with Disabilities Act.

Policy MT-8-c New Development Facilitating Transit. Continue to review development proposals in transportation corridors to ensure they are designed to facilitate transit. Coordinate all projects that have residential or employment densities suitable for transit services, so they are located along existing or planned transit corridors or

that otherwise have the potential for transit orientation to FAX [Fresno Area Express] and consider FAX's comments in decision-making.

Fresno Southeast Development Area Specific Plan

The Fresno Southeast Development Area (SEDA) Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to air quality:

Housing Choice and Affordability

Objective HC-3 Link housing and transportation together to limit family expenditures on both housing and transportation. The multimodal transportation network connects housing and jobs within the Southeast Development Area and to other major regional centers, facilitating internal travel by non-automobile means. The Urban Form Chapter addresses the location, distribution, and standards for transportation infrastructure investment, combining transportation options with land use development to ultimately lower travel costs for SEDA residents and employees.

Policy HC-3.2 Travel. Encourage accessible, mixed-use development that incorporates housing and jobs, while lowering daily vehicle miles traveled.

Policy HC-3.3 Smart Land Uses. Build smaller-lot single-family and multifamily housing types which use less energy and water than larger units.

Open Space, Schools, and Public Facilities

Objective OS-2 Create and maintain an open space network that serves multiple purposes, including recreation, stormwater management, community farming, and environmental preservation.

Policy OS-2.5 Renewable Energy Generation. Support renewable energy technology systems in open spaces, where appropriate.

- Pursue arrangements with public agencies and private partners to accommodate renewable energy systems, such as solar arrays, in areas that can serve a joint use as passive open space.

Objective OS-6 Ensure that all park, trail, and recreational facilities make the most efficient use of energy, water, and other natural resources.

Policy OS-6.1 Green Building. As important civic structures, park buildings shall conform to green building standards for energy and water efficiency.

Policy OS-6.3 Renewable Energy Systems. Explore developing renewable energy systems to provide power to park facilities.

Objective OS-10 Civic facilities, such as libraries, community centers, senior centers, post offices, and other civic buildings, will be integrated into the urban fabric of centers and communities, and will be well-served by public transit, paths, and trails.

Policy OS-10.5 On-site Renewable Energy Generation. Pursue opportunities to develop renewable energy systems for civic facilities.

Greenhouse Gas Reduction and Conservation

Objective RC-1 Meet Statewide targets set for greenhouse gas emissions reductions as set forth in the City's updated GHG Reduction Plan, adopted in 2021.

Policy RC-1.1 Land Use Strategies. Link land use and transportation by incorporating the following components into SEDA's land use plan:

- a) Compact Development. Maximize opportunities in the SEDA for compact, higher density development to provide more housing, conserve resources, and reduce travel distances.
- b) Design the Neighborhood, Community, and Regional Town Centers in the SEDA as Mixed-Use Districts that include ground floor retail, civic and other commercial uses and upper floors of office and residential uses. Locate mixed-use development along high-quality transit corridors such as the Ventura/Kings Canyon Corridor that will serve SEDA's Regional Town Center. Incentivize developments that are mixed use, defined as pedestrian-friendly development that blends two or more residential, commercial, cultural or institutional uses, one of which must be residential.
- c) Pedestrian-Oriented Development. Providing pedestrian-friendly infrastructure such as sidewalks, paths, and direct connections to neighboring uses such as shopping, schools, libraries and parks increases the potential for people to make trips on foot, bicycle or transit instead of by car. New development should include all sidewalks, paths, trails and facilities required by the General Plan, the Active Transportation Plan and the SEDA.
- d) Incentives for Pedestrian-Oriented Anchor Retail. Consider adopting and implementing incentives for new pedestrian-friendly anchor retail to be applied within the SEDA's Regional, Community, and Neighborhood Town Centers.
- e) Complete Streets. Ensure that all streets in the SEDA comply with the City's Complete Streets Policy.
- f) Transit Oriented Development. Design land uses and integrate development along High-Quality Transit Corridors such as the Ventura/Kings Canyon Corridor, with transit-oriented development that supports transit ridership and convenient pedestrian access to bus stops and station stops.

Policy RC-1.2 Transportation Facilities Strategies. Provide the following interconnected transportation facilities to encourage use of alternative modes of transportation and reduce vehicle trips:

- a) **Transit Facilities.** Ensure adequate transit routes and facilities are provided in the SEDA through coordination between the Planning and Development and FAX [Fresno Area Express] Departments. Planned facilities should include bus stops, multimodal transfer centers and information kiosks.
- b) **Pedestrian and Bicycle Infrastructure.** Ensure the SEDA is well-served by pedestrian and bicycle infrastructure, including sidewalks, bicycle lanes, bicycle paths and trails, and safe crossing infrastructure pursuant to the Active Transportation Plan.
- c) **Traffic Calming Measures.** Design features and strategies to reduce vehicle speeds and reduce conflicts with pedestrians to encourage more walking. Slower speeds encouraged by traffic calming can also improve safety and increase bicycling. Where appropriate, provide on-street parking or street trees and landscaping to separate vehicles from pedestrians to improve walkability.

Policy RC-1.3 Transportation Demand Strategies. Transportation Demand Strategies focus on commute trips and provide both incentives for using alternative modes of transportation and disincentives for use of the gas powered single-occupant vehicles. Examples include Transportation Demand Management (TDM) programs, parking strategies, and electric vehicle charging stations. The following strategies should be considered for implementation in the SEDA:

- a) Support the San Joaquin Valley Air Pollution Control District's Rule 9410 by encouraging a TDM Plan prior to issuance of certificates of occupancy at employer sites with 100 or more employees. TDM programs include making physical improvements to work sites, such as adding showers and lockers to encourage biking to work, free transit passes, carpool services, and preferential parking.
- b) Consider requiring employers with 50 or more employees to implement TDM programs in the SEDA.
- c) The City of Fresno and the San Joaquin Valley Air Pollution Control District should jointly fund a TDM Coordinator that would assist large employers in Fresno to develop and maintain TDM programs. This position would also support the creation of maintenance of these programs in the SEDA.
- d) Develop a trip reduction parking strategy in the SEDA that would encourage the use of alternative transportation modes. Such a program might include parking pricing at worksites, paid parking structures, and limited parking requirements.
- e) Develop minimum requirements for electric vehicle charging stations to be installed at worksites over a given size (50-100 employees).

Policy RC-1.4 Energy Conservation Strategies. Although new residential development now must meet zero-net-energy requirements, there is still a need to conserve energy to reduce GHG emissions. Energy use in buildings is the second largest generator of GHG emissions after transportation. The following policies will help accomplish needed GHG reductions:

- a) Consider developing an incentive program in SEDA for new buildings that exceed the California Energy Code requirements by 15 percent.
- b) Encourage and reward compliance with voluntary energy conservation certification programs such as LEED®, EnergyStar, or Greenpoint Rating systems.
- c) Promote compliance with State law mandating disclosure of a building's energy data and rating of the previous year to prospective buyers and lessees of the entire building or lenders financing the entire building.
- d) Partner with PG&E [Pacific Gas and Electric Company] or other organization to offer a home energy retrofit program to existing homeowners in the SEDA. Ensure that solar retrofits are made available to existing homeowners.

Policy RC-1.5 Waste Diversion, Recycling, & Energy Recovery. Establishing programs and actions that promote recycling and diversion of waste from landfills can reduce energy consumed in the transport and handling of the waste material and can reduce the greenhouse gases that are emitted during the decomposition of organic waste.

The State of California has adopted increasingly stringent mandates for the percentage of solid waste that can be disposed in landfills. In addition, certain landfills are mandated to install methane capture systems to result in greenhouse gas reductions from these sources. The effects of methane are powerful—as it is 21 times more effective than carbon dioxide in retaining heat in the atmosphere. Methane can be flared, producing mainly carbon dioxide or used in combustion devices to generate heat or power that can be used for productive purposes displacing the use of fossil fuels. The following policies are recommended in the SEDA to reduce GHGs and conserve energy:

- 1. Maintain current targets for recycling and re-use of all types of waste material in the City and enhance waste and wastewater management practices to reduce natural resource consumption, including the following measures:
 - a) Continue to require recyclable material collection and storage areas in all residential development.
 - b) Establish recycling collection and storage area standards for commercial and industrial facilities to size the recycling areas according to the anticipated types and amounts of recyclable material generated.
 - c) Provide educational materials to residents on how and what to recycle and how to dispose of hazardous waste.
 - d) Provide recycling canisters and collection in public areas where trash cans are also provided.
 - e) Institute a program to evaluate major waste generators and identify recycling opportunities for their facilities and operations.
 - f) Continue to partner with the California Integrated Waste Management Board on waste diversion and recycling programs and the CalMax (California Materials Exchange) program.

- g) Evaluate the feasibility of a residential, restaurant and institutional food waste segregation and recycling program, to reduce the amount of organic material sent to landfill and minimize the emissions generated by decomposing organic material.
 - h) Evaluate the feasibility of “carbon footprinting” for the City’s wastewater treatment facilities, biomass and composting operations, solid waste collection and recycling programs.
 - i) Expand yard waste collection to divert compostable waste from landfills.
 - j) Study the feasibility and cost-benefit analysis of a municipal composting program to collect and compost food and yard waste, including institutional food and yard waste, using the resulting compost matter for City park and median maintenance.
- 2. Create a strategic and operations plan for fulfilling the City Council resolution committing the City of Fresno to a Zero Waste goal.
 - 3. Continue to pursue opportunities to reduce air pollution by using methane gas from the old City landfill and the City’s wastewater treatment process.

Policy RC-1.6 Municipal Facilities. SEDA will include a range of municipal facilities from streetlights to parks and open spaces to community centers and police and fire facilities. It is important to include greenhouse gas reductions and energy conservation at City facilities, over which the City has direct control and can allocate resources for this purpose. In addition, implementing these measures at City facilities also establishes the City as a leader in GHG reduction and conservation, which is important as it implements these measures on a citywide basis. The following are potential citywide actions that can be initiated within the SEDA as opportunity allows:

- a) Improve energy efficiency in City operations.
- b) Exceed Title 24 energy efficiency standards for new City buildings.
- c) Install renewable energy systems on City facilities.
- d) Implement City operated Transportation Demand Management for City employees.
- e) Purchase green vehicles for City fleets.
- f) Enhance reduction, reuse and recycling efforts at City facilities.
- g) Implement water efficient landscaping in City parks and facilities.
- h) Establish a green purchasing program.

Policy RC-1.7 Urban Forestry Program. Encouraging the integration and protection of new and existing mature trees within our communities can lead to significant reductions in the urban heat island effect and energy required for cooling. As another significant benefit, trees also store harmful carbon as they grow, in a process known as sequestration. As these trees continue to grow, mature and sequester carbon, it is also important for urban forestry projects to consider potential tree emissions that result from the maintenance and ultimate disposition of trees to ensure a net decrease in greenhouse gas emissions occurs.

Maintaining trees, vegetation and plants throughout City parks is important to the success and longevity of these publicly owned spaces. In addition, these areas provide opportunities for new tree planting and replacement of tree species that possess a low potential to store carbon, with tree species that possess higher carbon storage potential. To better understand how to achieve these opportunities, there are many tools that communities can utilize. The Climate Action Reserve, Urban Forest Project Reporting Protocol (CAR 2019) provides criteria for generating greenhouse gas emission offsets with tree planting along with procedures for project monitoring.

Development of the SEDA will present many opportunities for the strategic planting of trees with high carbon storage potential, as noted below:

- a) Develop a tree palette for the SEDA that reinforces its sense of place, reflects native species, and includes tree species with high carbon storage potential.
- b) Meet parks shading targets noted in the Parks Master Plan.
- c) Plant shade trees to delineate corridors and the boundaries of urban areas, and to provide tree canopy for bike lanes, sidewalks, parking lots, and trails.

3.3.3 - Methodology

Regional air pollutant emissions are composed of those on-site and off-site construction and operational emissions generated from all facets of the proposed project. Air pollutant emissions can be estimated by using emission factors and a level of activity. Emission factors represent the emission rate of a pollutant over a given time or activity, for example, grams of NO_x per vehicle mile traveled or grams of NO_x per horsepower hour of equipment operation. The activity factor is a measure of how active a piece of equipment is and can be represented as the amount of material processed, elapsed time that a piece of equipment is in operation, horsepower of a piece of equipment used, the amount of fuel consumed in a given amount of time, or VMT per day. The ARB has published emission factors for on-road mobile vehicles/trucks in the Emission Factor (EMFAC) mobile source emissions model and emission factors for off-road equipment and vehicles in the OFFROAD emissions model. An air emissions model (or calculator) combines the emission factors and the levels of activity and outputs the emissions for the various pieces of equipment.

The California Emissions Estimator Model (CalEEMod) was developed in cooperation with the Valley Air District and other air districts throughout the State. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with construction and operation from a variety of land uses. CalEEMod Version 2020.4.0, was launched on June 1, 2021, as part of a coordinated development effort between the California Air Pollution Control Officers Association (CAPCOA), the California Air Districts and Trinity Consultants. Regional construction and operational emissions reported in this analysis were modeled using CalEEMod Version 2020.4.0.

Thresholds of Significance

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines. 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 determinations. A significant impact would occur if the proposed project would:

- 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 proposed project would exceed these air pollution thresholds, the proposed 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 District's GAMAQI.²⁶ Based on the 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 3.3-6. These thresholds apply to the proposed 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.

Table 3.3-6: 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

²⁶ San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impact.

Pollutant	Construction Thresholds (TPY)	Operational Thresholds (TPY)	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
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 10 microns PM _{2.5} = particulate matter with aerodynamic diameter less than 2.5 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 Impacts.			

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.

Air dispersion modeling is not applicable at a program level. Consequently, for the purpose of this Recirculated Draft PEIR, emissions of any criteria air pollutant that would exceed the applicable threshold of significance identified in Table 3.3-6 is considered to result in elevated concentrations of air pollutants that have the potential to exceed the AAQS. It should be noted that CO hotspot monitoring was previously required under the GAMAQI. However, emissions from motor vehicles, by far the largest source of CO emissions, have been declining since 1985 despite increases in VMT, the introduction of new automotive emission controls, and fleet turnover. Consequently, no CO hotspots have been reported in the SJVAB even at the most congested intersections.

Odor Threshold Discussion

Odor impacts on residential areas and other sensitive receptors, such as hospitals, daycare centers, schools, etc., warrant the closest scrutiny, but consideration could also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas. While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the Valley Air District.

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. The Valley Air District has determined the common land use types that are known to produce odors in the SJVAB. These types are shown in Table 3.3-7.

Table 3.3-7: 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
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. Guidance for Assessing and Mitigating Air Quality Impacts.	

According to the District's 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.

Projects proposing to locate facilities listed in Table 3.3-7 would require an odor assessment to determine whether the project would impact sensitive receptors. The first step is to determine whether the proposed project would result in existing or planned land uses with sensitive receptors being located within the distances listed in Table 3.3-7. If yes, a more detailed analysis including a review of the Valley Air District odor complaint records is warranted. The detailed analysis would involve contacting the Valley Air District's Compliance Division for information regarding odor complaints for similar facilities and review of the facilities operation statement to identify processes and emissions sources that have the potential to generate odors. Facilities with the potential to generate significant odors would be required to prepare an odor management plan for approval by the City and by the California Department of Resources Recycling and Recovery (CalRecycle) for facilities involved in handling solid waste.²⁷

²⁷ California Department of Resources Recycling and Recovery (CalRecycle). 2022. Instructions for Completing the Odor Best Management Practice Feasibility Report. Website: <https://calrecycle.ca.gov/lea/regs/implement/odorbmp/pt/>. Accessed June 29, 2022.

For a project locating near an existing source of odors, the proposed project should be identified as having a potentially significant odor impact if it is proposed for a site that is as close or closer to an existing odor source where there have been:

- More than one *confirmed* complaint per year averaged over a 3-year period, or
- Three *unconfirmed* complaints per year averaged over a 3-year period.

Projects meeting these criteria should provide an odor assessment to determine whether the odor issues from the facilities have been resolved or if mitigation measures are available to reduce odor impacts to future residents. In all cases, this information will be included as part of the proposed project file for public disclosure.

3.3.4 - Impact Analysis, Mitigation Measures, and Level of Significance After Mitigation

This section discusses potential impacts associated with the development of the proposed project and provides mitigation measures where appropriate.

Consistency with Air Quality Management Plan

Impact AIR-1	The proposed project would conflict with or obstruct implementation of the applicable air quality plan.
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Impact Analysis

This document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project conform to the growth assumptions in the AQPs?
2. Will the project comply with applicable control measures in the AQPs?

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:

- 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 SJVAB can reach attainment for the AAQS. In order 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.

Consistency with Assumptions in AQPs

A method for determining consistency with the AQP's assumptions is determining consistency with the applicable General Plan to ensure that the proposed project's population density and land use are consistent with the growth assumptions used in the AQPs for the SJVAB. The regional emissions inventory for the SJVAB is compiled by the Valley Air District and Fresno COG. Regional population, housing, and employment projections developed by Fresno COG are based, in part, on the local jurisdictions' general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP. These demographic trends are incorporated into the 2022–2046 RTP/SCS, compiled by Fresno COG to determine priority transportation projects within the Fresno COG region.

The Valley Air District is tasked with implementing programs and regulations required by the federal CAA and the California CAA. The Valley Air District has prepared several plans to attain the National AAQS and California AAQS. Emission reductions achieved through implementation of the Valley Air District's NSR offset requirements are a major component of the Valley Air District's AQPs. The established thresholds of significance for criteria pollutant emissions are based on the Valley Air District's offset requirements for stationary sources. Therefore, projects with emissions below the thresholds of significance for criteria pollutants would be determined to "not conflict or obstruct implementation of the District's air quality plan." The analysis in Impact AIR-2 demonstrates that the proposed Specific Plan would generate long-term emissions of criteria air pollutants that would exceed the Valley Air District's regional operation-phase significance thresholds, which were established to determine whether a project has the potential to cumulatively contribute to the SJVAB's nonattainment designations. Thus, implementation of the proposed Specific Plan would 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 the AAQS.

Various policies of the General Plan and the proposed Specific Plan would promote complete streets, mixed-use and transit-oriented neighborhoods, and increased capacity for alternative transportation modes, which would help reduce air pollutant emissions. As included in the Regulatory Framework section above, these policies include General Plan policies UF-1c, UF-12a-f, UF-14a and 14b, LU-2, LU-3, LU-5-f, RC-4, HC-3-d, HC-3-f, MT-1 and MT-2. Proposed Fresno SEDA Specific Plan policies related to air quality include HC-3.2 and 3.3, OS-6, and the policies included in the draft Plan's Greenhouse Gas Reduction and Conservation chapter, including Policy RC-1.1 through 1.7. These policies promote active transit, clean air measures, and support the reduction in average vehicle trip distances, which contribute to reducing overall per capita VMT in the region.

Mitigation Measure (MM) AIR-1a would serve to further reduce emissions generated by future development projects envisioned in the Plan Area. MM AIR-1b and MM AIR-1c require the submittal of a technical assessment of project-specific construction phase and operation-related air quality impacts, and the identification of project-specific mitigation measures as appropriate, prior to future discretionary project approval. MM AIR-1d requires the submittal of a Health Risk Assessment (HRA) and the inclusion of project-specific T-BACTs as appropriate, prior to future discretionary approval for future industrial or warehousing projects located within established screening distances. In addition, as described in the regulatory section, AB 98 will prescribe various Statewide warehouse design and

building standards for new or expanded logistics use developments. These requirements will ensure that individual future development projects in the Plan Area do not have a significant impact on sensitive receptors.

However, even with the implementation of these policies and mitigation measures, as further discussed under Impact AIR-2 and Impact AIR-3, due to the size of the proposed development, the proposed project could create a localized violation of State or federal air quality standards, significantly contribute to cumulative nonattainment pollutant violations, and potentially expose sensitive receptors to substantial pollutant concentrations under cumulative conditions. There is not mitigation available that would reduce the criteria pollutant emissions from the proposed project's construction or operation to less than significant levels, as compared to the recommended Valley Air District significance thresholds. Therefore, the proposed project would have a significant impact under this criterion.

Control Measures

The AQP contains a number of control measures that are enforceable requirements through the adoption of rules and regulations. A detailed description of rules and regulations that apply to this project is provided in Section 3.3.2, Regulatory Framework. The proposed project would comply with all applicable District rules and regulations. Therefore, the proposed project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan for this criterion.

Impact Summary

The proposed project has the potential to exceed the Valley Air District's significance thresholds during construction and operation. Implementation of the proposed project would result in the generation of substantial long-term criteria air pollutant emissions that would exceed the Valley Air District regional significance thresholds and would therefore not be considered consistent with the existing AQPs. MM AIR-1a, MM AIR-1b, MM AIR-1c, and MM AIR-1d would serve to reduce construction and operation-phase criteria air pollutant emissions; however, the mitigation measures would not reduce emissions to less than significant levels. Applicable Valley Air District rules and regulations in addition to the proposed project's policies and design guidelines would contribute to reducing long-term criteria air pollutant emissions to the extent feasible. However, due to the magnitude and intensity of development accommodated by the proposed project, Impact AIR-1 would remain significant and avoidable.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AIR-1a Prior to future discretionary project approval in the Fresno Southeast Development Area Specific Plan Area (Plan Area), development project applicants shall prepare and submit to the Director of the Planning and Development Department, or designee, documentation that demonstrates the use of "Super-Compliant" architectural coatings during construction of the proposed project. "Super-

Compliant” architectural coatings, also known as low-VOC, are paints which do not exceed 10 grams of reactive organic gas (ROG) per liter of paint.

All architectural coatings shall be applied either by (1) using a high-volume, low-pressure spray method operated at an air pressure between 0.1 and 10 pounds per square inch gauge to achieve a 65 percent application efficiency; or (2) manual application using a paintbrush, hand-roller, trowel, spatula, dauber, rag, or sponge, to achieve a 100 percent application efficiency. The construction contractor shall also use precoated/natural colored building materials, where feasible.

MM AIR-1b

Prior to future discretionary project approval in the Fresno Southeast Development Area Specific Plan Area (Plan Area), development project applicants shall prepare and submit to the Director of the Planning and Development Department, or designee, a technical assessment evaluating potential project construction phase-related air quality impacts. The evaluation shall be prepared in conformance with San Joaquin Valley Air Pollution Control District (Valley Air District) methodology for assessing construction impacts. If construction-related air pollutants are determined to have the potential to exceed the SJVAPCD adopted threshold of significance, project applicants for new development projects shall be required to incorporate mitigation measures into construction plans to reduce air pollutant emissions during construction activities. The identified measures shall be included as part of the Project Conditions of Approval. Possible mitigation measures to reduce construction emissions include but are not limited to:

- Use of offroad construction equipment that meets the United States Environmental Protection Agency (EPA) Tier 4 Final off-road engine emissions standards.
- Install temporary construction power supply meters on-site and use these to provide power to electric power tools whenever feasible. If temporary electric power is available on-site, forbid the use of portable gasoline- or diesel-fueled electric generators.
- Use of diesel oxidation catalysts and/or catalyzed diesel particulate traps on diesel equipment, as feasible.
- Maintain equipment according to manufacturers’ specifications.
- Restrict idling of equipment and trucks to a maximum of 5 minutes (per California Air Resources Board [ARB] regulation).
- Phase grading operations to reduce disturbed areas and times of exposure.
- Avoid excavation and grading during wet weather.
- Limit on-site construction routes and stabilize construction entrance(s).
- Remove existing vegetation only when absolutely necessary.
- Sweep up spilled dry material (e.g., cement, mortar, or dirt trackout) immediately. Never attempt to wash them away with water. Use only minimal water for dust control.
- Store stockpiled material and waste under a temporary roof or secured plastic sheeting or tarp.

MM AIR-1c Prior to future discretionary project approval in the Fresno Southeast Development Area Specific Plan Area (Plan Area), development project applicants shall prepare and submit to the Director of the Planning and Development Department, or designee, a technical assessment evaluating potential project operation-related air quality impacts. The evaluation shall be prepared in conformance with San Joaquin Valley Air Pollution Control District (Valley Air District) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the Valley Air District adopted thresholds of significance, the project applicants for new development projects shall be required to incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the Project Conditions of Approval. Possible mitigation measures to reduce long-term emissions include but are not limited to:

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections including the use of electric-powered forklifts and/or other interior vehicles at loading docks for plugging in the anticipated number of refrigerated trailers to reduce idling time and emissions.
- Applicants for manufacturing and light industrial uses shall consider energy storage (i.e., battery) and combined heat and power (CHP, also known as cogeneration) in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.
- Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with ARB Rule 2845 (13 California Code of Regulations [CCR] Chapter 10, § 2485).
- Electric vehicle (EV) charging shall be provided as specified in Section A4.106.8.2 (Residential Voluntary Measures) of the California Green Building Standards Code (CALGreen) Code.
- Bicycle parking shall be provided as specified in Section A4.106.9 (Residential Voluntary Measures) of the CALGreen Code.
- Projects shall be required to implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24 and reduction of indoor water use by 25 percent.
- Maximize use of solar energy including solar panels; installing the maximum possible number of solar energy arrays on building roofs throughout the City to generate solar energy.
- Maximize the planting of trees in landscaping and parking lots.
- Use light-colored paving and roofing materials.
- Require use of electric or alternatively fueled street-sweepers with HEPA filters.
- Require use of electric lawn mowers and leaf blowers.
- Utilize only Energy Star heating, cooling, and lighting devices, and appliances.
- Use of water-based or low volatile organic compound (VOC) cleaning products.

- For buildings with more than 10 tenant-occupants, changing/shower facilities shall be provided as specified in Section A5.106.4.3 (Nonresidential Voluntary Measures) of the California Green Building Standards Code (CALGreen) Code.
- Long-term and short-term bicycle parking shall be provided as specified in Section A5.106.4 (Nonresidential Mandatory Measure) of the CALGreen Code.
- Preferential parking for low-emitting, fuel-efficient, and carpool/van vehicles shall be provided as specified in Section A5.106.5.1 (Nonresidential Voluntary Measures) of the CALGreen Code.

Facilities shall be installed to support future EV charging at each nonresidential building with 30 or more parking spaces. Installation shall be consistent with Section A5.106.5.3 (Nonresidential Voluntary Measures) of the CALGreen Code.

MM AIR-1d

Prior to future discretionary project approval in the Fresno Southeast Development Area Specific Plan Area (Plan Area), development project applicants proposing a project with the potential to introduce sources of diesel particulate matter (DPM) and/or toxic air contaminants (TACs) (such as diesel backup generators or significant truck trips) within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall prepare and submit to the Director of the Planning and Development Department, or a designee, a Health Risk Assessment (HRA). The HRA shall be prepared in accordance with policies and procedures of the most current California Office of Environmental Health Hazard Assessment (OEHHA) and the San Joaquin Valley Air Pollution Control District (Valley Air District). If the HRA shows that the incremental health risks exceed their respective thresholds, as established by the Valley Air District at the time a project is considered, the project applicant shall be required to identify and demonstrate that Best Available Control Technologies for toxics (T-BACTs), including appropriate enforcement mechanisms to reduce risks to an acceptable level. T-BACTs may include, but are not limited to:

- Restricting idling on-site or electrifying warehousing docks to reduce DPM;
- Requiring use of newer tier equipment and/or vehicles;
- Providing charging infrastructure for: electric forklifts, electric yard trucks, local drayage trucks, last mile delivery trucks, electric and fuel-cell heavy-duty trucks; and/or
- Installing solar panels, zero-emission backup electricity generators, and energy storage to minimize emissions associated with electricity generation at the project site.

T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

Level of Significance After Mitigation

Significant and unavoidable impact.

Cumulative Criteria Pollutant Emissions Impacts

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

This impact is related to the cumulative effect of a project's regional criteria pollutant emissions. By its nature, air pollution is largely a cumulative impact resulting from emissions generated over a large geographic region. The nonattainment status of regional pollutants is a result of past and present development within the SJVAB, and this regional impact is a cumulative impact. In other words, new development projects (such as the proposed project) within the SJVAB would contribute to this impact only on a cumulative basis. No single project would be sufficient in size, by itself, to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited but cumulatively considerable when taken in combination with past, present, and future development projects. All new development that would result in an increase in air pollutant emissions above those assumed in regional AQPs would contribute to cumulative air quality impacts.

The cumulative analysis focuses on whether a specific project would result in cumulatively considerable emissions. According to Section 15064(h)(4) of the CEQA Guidelines, the existence of significant cumulative impacts caused by other projects alone does not constitute substantial evidence that the proposed project's incremental effects would be cumulatively considerable.

Rather, the determination of cumulative air quality impacts for construction and operational emissions is based on whether the proposed project would result in regional emissions that exceed the Valley Air District regional thresholds of significance for construction and operations on a project level. Projects that generate emissions below the significance thresholds would be considered consistent with regional air quality planning efforts and would not generate cumulatively considerable emissions. The primary pollutants of concern during project construction and operation are ROG, NO_x, PM₁₀, and PM_{2.5}. The Valley Air District's GAMAQI, adopted in 2015, contains thresholds for CO, NO_x, ROG, SO_x, PM₁₀, and PM_{2.5}.

Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NO_x emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. The SJVAB often exceeds the State and national ozone standards. Therefore, if the proposed project emits a substantial quantity of ozone precursors, the proposed project may contribute to an exceedance of the ozone standard. The SJVAB also exceeds air quality standards for PM₁₀, and PM_{2.5}; therefore, substantial project emissions may contribute to an exceedance for these pollutants. The Valley Air District's annual emission significance thresholds used for the proposed project define the substantial contribution for both operational and construction emissions as follows:

- 100 tons per year CO
- 10 tons per year NO_x
- 10 tons per year ROG
- 27 tons per year SO_x
- 15 tons per year PM₁₀
- 15 tons per year PM_{2.5}

Construction Emissions

Construction emissions result from on-site and off-site activities. On-site emissions principally consist of exhaust emissions from the heavy-duty off-road construction equipment, on-site motor vehicle operation, and fugitive dust from disturbed soil. Off-site emissions are caused by motor vehicle exhaust from delivery and haul truck vehicles, work traffic, and road dust (mainly PM_{2.5} and PM₁₀). The majority of this fugitive dust will remain localized and limited to the atmosphere around the proposed project site. However, the potential for off-site impacts from fugitive dust exists unless control measures are implemented to reduce the particulate emissions from this source prior to leaving construction sites.

Construction activities associated with buildout of the proposed project are anticipated to occur sporadically over approximately 25 years or more. Buildout would consist of multiple smaller projects, each having its own construction timeline and activities. Development of multiple properties could occur at the same time. However, there is no defined development schedule for these future projects at this time. For this analysis, the estimate of annual emissions is based on a conservative scenario, where several construction projects occur at one time and all construction phases overlap. Table 3.3-8 shows the unmitigated annual construction emissions for future development projects envisioned under the proposed project. The table shows the annual emissions that would be generated over the anticipated development period.

Table 3.3-8: Annual Construction Regional Emissions—Unmitigated

Construction Activity		Mass Annual Emissions (tons per year)					
		VOC	NO _x	CO	SO _x	Total PM ₁₀	Total PM _{2.5}
Construction Year 2024	Total	1,770.60	201.58	340.25	1.62	131.49	37.21
Construction Year 2025	Total	668.30	188.85	285.15	1.47	118.91	33.38
Construction Year 2026	Total	30.45	180.53	251.56	1.38	111.69	31.28
Construction Year 2027	Total	28.71	178.02	239.10	1.35	111.66	31.25
Construction Year 2028	Total	27.01	175.33	227.91	1.31	111.21	31.11
Construction Year 2029	Total	25.59	174.10	219.84	1.28	111.61	31.20
Construction Year 2030	Total	24.16	172.00	212.31	1.26	111.53	31.13
Construction Year 2031	Total	22.80	170.82	205.81	1.23	111.51	31.11
Construction Year 2032	Total	21.70	170.51	201.14	1.22	111.92	31.21
Construction Year 2033	Total	20.47	168.46	195.01	1.19	111.04	30.95

Construction Activity		Mass Annual Emissions (tons per year)					
		VOC	NO _x	CO	SO _x	Total PM ₁₀	Total PM _{2.5}
Construction Year 2034	Total	19.55	167.74	191.02	1.17	111.02	30.94
Construction Year 2035	Total	18.78	167.59	188.31	1.16	111.43	31.03
Construction Year 2036	Total	18.85	168.23	189.03	1.17	111.85	31.15
Construction Year 2037	Total	18.78	167.59	188.31	1.16	111.43	31.03
Construction Year 2038	Total	18.78	167.59	188.31	1.16	111.43	31.03
Construction Year 2039	Total	18.70	166.95	187.59	1.16	111.00	30.91
Construction Year 2040	Total	15.74	165.69	177.17	1.12	111.37	30.98
Construction Year 2041	Total	15.74	165.69	177.17	1.12	111.37	30.98
Construction Year 2042	Total	15.74	165.69	177.17	1.12	111.37	30.98
Construction Year 2043	Total	5.19	54.60	58.38	0.37	36.70	10.21
Maximum Daily Emissions		1,770.60	201.58	340.25	1.62	131.49	37.21
Valley Air District Air Quality Significance Thresholds		10	10	100	27	15	15
Exceed Threshold?		Yes	Yes	Yes	No	Yes	Yes
Notes: CO = carbon monoxide NO _x = oxides of nitrogen PM ₁₀ = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less. PM _{2.5} = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers The PM ₁₀ and PM _{2.5} emissions reflect Regulation VIII—Fugitive PM ₁₀ Prohibitions. VOC = Volatile Organic Compounds Source of emissions: Appendix B.							

As shown in the table, construction activities associated with implementation of the proposed Plan could potentially exceed the Valley Air District regional thresholds for VOC, NO_x, CO, PM_{2.5}, and PM₁₀. The primary source of NO_x emissions is vehicle and construction equipment exhaust. NO_x is a precursor to the formation of both ozone and particulate matter (PM₁₀ and PM_{2.5}). VOC is a precursor to the formation of ozone. PM₁₀ emissions primarily occur as fugitive dust due to disturbed soil, and road dust. Project-related emissions would contribute to the ozone, PM₁₀, and PM_{2.5} nonattainment designations of the SJVAB.

As previously discussed, existing General Plan policies would help minimize construction emissions from projects in the Plan Area. Compliance with the Valley Air District Regulation VIII requirements, which serve to reduce fugitive dust from construction and trackout, help to reduce particulate matter emissions from construction activities in the SJVAB. As part of the development process, individual site-specific projects accommodated under the proposed Specific Plan that meet the criteria of Valley Air District Rule 9510 would be required to prepare a detailed air quality impact assessment. To the extent applicable under Rule 9510 for each such individual development, the Valley Air District would require calculation of the construction emissions from the development.

The purpose of the air quality impact assessment is to confirm a development's construction exhaust emissions and therefore be able to identify appropriate mitigation, either through implementation of specific mitigation measures or payment of applicable off-site fees. Compliance with Rule 9510 will be required for future development projects envisioned as part of the proposed project. However, because these future projects are not yet defined, it is not possible to quantify the potential emission reductions that would be associated with compliance with Rule 9510 at the project level. Furthermore, while adherence to Rule 9510 would contribute to reducing exhaust NO_x emissions, it would not be applicable to reducing VOC emissions generated by operation of equipment and from off-gassing from asphalt and paints.

There is the potential for multiple projects and construction phases to be constructed at one time in the Plan Area, which may result in the generation of cumulatively significant amounts of criteria pollutant emissions. Therefore, project-related construction activities would result in potentially significant regional air quality impacts due to the potential for overlapping impacts from multiple projects being constructed at one time.

To reduce the impacts of future development projects consistent with the proposed project, MM AIR-1a and MM AIR-1b are required. These mitigation measures would reduce emissions of VOC, NO_x, PM₁₀, and PM_{2.5} associated with the construction of future development projects in the Plan Area to the extent feasible. However, due to the size of the proposed project and the potential for overlapping construction activities, future development projects could still potentially exceed the Valley Air District regional thresholds, even with the implementation of mitigation. Therefore, project-related construction activities would result in significant and unavoidable regional air quality impacts.

Operational Emissions

Buildout of the proposed project would result in direct and indirect criteria air pollutant emissions from area, energy, and mobile sources. Area sources would include activities such as landscape maintenance and occasional architectural coatings. Energy sources would include electricity and natural gas combustion for space and water heating. Mobile sources would include vehicle trips associated with passenger cars. As previously discussed, the Valley Air District regional emission significance thresholds were used to determine the proposed project's impact significance. The proposed Fresno SEDA Specific Plan policies emphasize development of mixed-use areas and improvements to active and public transit facilities that would contribute to reducing vehicle trips and VMT. As an example, the proposed project would create mixed use areas and would integrate distinct neighborhood commercial development areas that would provide daily services and amenities for the nearby residences and businesses.

Overall, the general proposed guiding principles and objectives for land use planning and the proposed land use changes and transportation improvements would contribute to reducing vehicle trips and VMT per service population to the extent feasible. Furthermore, existing General Plan policies would further reduce emissions from the operation of future projects in the Plan Area. However, when compared to the existing land uses, due to the magnitude of planned growth in the Plan Area, implementation of the proposed project would generate significant emissions of criteria pollutants, and a net increase of approximately 602,972 in total regional VMT (see Appendix B). As

the proposed project would become fully operational in 2050, Table 3.3-9 shows the annual operational emissions for full buildout of the proposed project in 2050.

Table 3.3-9: Project Net Annual Operational Emissions–Unmitigated (2050)

Emissions Source	Pounds per Year					
	VOC	NO _x	CO	SO _x	PM ₁₀ (Total)	PM _{2.5} (Total)
Area	1,100.19	19.43	320.23	0.12	3.02	3.02
Energy	6.47	56.24	30.23	0.35	4.47	4.47
Mobile	166.63	311.03	1,798.71	4.59	644.30	173.88
Annual Total Emissions	1,273.29	386.69	2,149.17	5.06	651.79	181.37
<i>Existing Emissions</i>	178.12	83.42	462.80	0.87	71.17	29.72
Net Annual Emissions	1,095.17	303.27	1,686.37	4.19	580.62	151.65
Valley Air District Significance Thresholds	10	10	100	27	15	15
Exceed Threshold?	Yes	Yes	Yes	No	Yes	Yes
Notes: CO = carbon monoxide NO _x = oxides of nitrogen PM ₁₀ = particulate matter with aerodynamic diameter less than 10 microns PM _{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns. SO _x = oxides of sulfur Source of emissions: Appendix B.						

As shown in this table, due to the magnitude of the proposed growth, operation of the land uses accommodated under the proposed project at buildout would generate air pollutant emissions that exceed the Valley Air District’s regional significance thresholds for VOC, NO_x, CO, PM₁₀, and PM_{2.5} at full buildout. Emissions of VOC and NO_x that exceed the Valley Air District regional threshold would cumulatively contribute to the ozone nonattainment designation of the SJVAB. Emissions of NO_x that exceed the Valley Air District’s regional significance thresholds would cumulatively contribute to the ozone and particulate matter nonattainment designations of the SJVAB. Emissions of direct PM₁₀ and PM_{2.5} would contribute to the PM_{2.5} nonattainment designations.

The application of the Valley Air District Rule 9510 to future individual projects would contribute to reducing NO_x and particulate matter emissions. In addition, application of Valley Air District Rule 9410 (Employer Based Trip Reduction) would contribute to reducing mobile source emissions from the operation of the proposed project. The objectives and policies included in the proposed Specific Plan would generally support a more sustainable development pattern to accommodate growth within the Plan Area by creating complete neighborhoods, high-density housing in proximity to jobs and service amenities, and supporting alternative transit options through improvements to the pedestrian, bicycle, public transportation, and alternative-fueled vehicle networks and infrastructure, which would contribute in minimizing long-term criteria air pollutant emissions.

However, while compliance with the Valley Air District rules and the policies of the proposed Specific Plan may contribute to reducing operation-related regional air quality impacts of individual projects envisioned under the proposed Specific Plan to less than significant levels, the projected cumulative emissions associated with future development projects would be in exceedance of the Valley Air District thresholds. Therefore, implementation of the proposed project would result in a significant impact because it would significantly contribute to the nonattainment designations of the SJVAB. To reduce emissions from the operation of future projects envisioned in the proposed project, MM AIR-1c and MM AIR-1d are required to reduce emissions to the extent feasible, in combination with the existing General Plan policies applicable to the proposed project. However, due to the magnitude of emissions generated by the residential, office, and commercial land uses proposed as part of the proposed project, no mitigation measures are available that would reduce cumulative impacts below the Valley Air District's thresholds. Therefore, despite adherence to the applicable mitigation measures, Impact AIR-2 would remain significant and unavoidable.

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 MM AIR-1a through MM AIR-1d.

Level of Significance After Mitigation

Significant and unavoidable impact.

Buildout of the proposed project would occur over approximately 25 years, or longer. Construction activities associated with buildout of the proposed project could generate short-term emissions that exceed the Valley Air District's significance thresholds during this time and cumulatively contribute to the nonattainment designations of the SJVAB. The General Plan policies and the implementation of MM AIR-1a and MM AIR-1b would reduce criteria air pollutant emissions from construction-related activities to the extent feasible. However, specific construction time frames and equipment for individual site-specific projects are not available and there is a potential for multiple developments to be constructed at any one time, resulting in potentially significant cumulative construction-related emissions.

Buildout in accordance with the proposed project would generate long-term emissions that would exceed the Valley Air District's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SJVAB. To reduce emissions from the operation of future projects envisioned in the proposed project, MM AIR-1c is required to reduce operation emissions to the extent feasible, in combination with the existing General Plan policies. In addition, MM AIR-1d will

serve to reduce emissions and exposure and potential health risks associated with operation of the proposed project. However, due to the magnitude of emissions generated by the residential, office, and commercial land uses proposed as part of the proposed project, no mitigation measures are available that would reduce cumulative impacts below the Valley Air District's thresholds. Therefore, Impact AIR-2 would remain significant and unavoidable.

Sensitive Receptors Exposure to Pollutant Concentrations

Impact AIR-3	The proposed project would expose sensitive receptors to substantial pollutant concentrations.
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Impact Analysis

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.

Construction: ROG

ROG is 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. Therefore, exposure to ROG during architectural coatings is a less than significant health impact.

There are three types of asphalt that 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°F or lower; and emulsified asphalt containing organic compounds, in excess of 3 percent by volume, that 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; 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 reduce ROG emissions from asphalt and exposure. The impact to nearby sensitive receptors from ROG during construction is less than significant.

Operation: ROG

During operation, ROG would be emitted primarily from motor vehicles. Direct exposure to ROG from project motor vehicles would not result in health effects, because the ROG would be

distributed across miles and miles of roadway and in the air. The concentrations would not be great enough to result in direct health effects.

Construction and Operation: NO_x, PM₁₀, and PM_{2.5}

As discussed in Impact AIR-2, construction and operation of future individual development projects accommodated under the proposed Specific Plan could potentially result in an exceedance of the Valley Air District's ambient air quality screening threshold of 100 pounds per day.

As stated, the planned improvements, objectives and policies under the proposed Specific Plan would generally support a sustainable development pattern in accommodating future growth within the Plan Area, which would generally contribute to reducing long-term criteria air pollutant emissions. In addition, application of the Valley Air District Rule 9510 and Regulation VIII would contribute to reducing operation- and construction-related NO_x and particulate matter emissions. Furthermore, Rule 9410 would also contribute to reducing operation-related mobile source emissions.

However, while individual development projects may not result in exceeding the screening threshold of 100 pounds per day, the projected cumulative emissions associated with future development projects accommodated under the proposed Specific Plan would be in exceedance and could result in causing an exceedance of the AAQS. Therefore, as construction and operation of future individual development projects accommodated under the proposed Specific Plan could result in causing or contribute to a violation of the AAQS, impacts to air quality would be significant.

Toxic Air Contaminants

During construction and operation, the proposed project could result in emissions of several TACs that could potentially impact nearby sensitive receptors. The Valley Air District has defined health risk significance thresholds. These thresholds are represented as a cancer risk to the public and a non-cancer hazard from exposures to TACs. Cancer risk represents the probability (in terms of risk per million individuals) that an individual would contract cancer resulting from exposure to TACs continuously over a period of several years. 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 a million (formerly 10 in a million). Exposures to TACs can also result in both short-term (acute) or long-term (chronic) non-cancer health impacts. Such impacts could include illnesses related to reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system, birth defects, or other adverse environmental effects.

Project construction would involve the use of diesel-fueled vehicles and equipment that emit DPM, which is considered a TAC. Industrial land uses, such as chemical processing facilities, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities, have the potential to be substantial stationary sources that would require a permit from the Valley Air District for emissions of TACs. Emissions of TACs would be controlled through permits issued by the Valley Air District and would be subject to further study and an HRA prior to the issuance of any necessary air quality permits. In addition to stationary/area sources of TACs, commercial and industrial operations could generate a substantial amount of DPM emissions from off-road equipment use and truck idling. New land uses in the proposed Plan Area that use diesel trucks, including trucks with transport refrigeration units,

could generate an increase in DPM that would contribute to cancer and non-cancer health risk in the SJVAB.

As it is not possible to determine the amount of TAC concentrations at the time of this analysis, it is not possible to calculate the risks for a particular health effect within the Plan Area. The proposed project is a programmatic project and until specific future projects are proposed, the associated TAC emissions cannot be determined or modeled at this time. Through the implementation of MM AIR-1d, future development projects subject to environmental review under CEQA would be required to analyze potential TAC emissions and include mitigation as appropriate.

ARB developed a guidance document, *Air Quality and Land Use Handbook: A Community Health Perspective* (ARB Handbook), to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. ARB's recommendations for the siting of new sensitive land uses were based on a compilation of studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. Respiratory and cardiovascular problems including asthma, lung cancer, and premature death have been associated with living near major roadways and freeways. Children who live near major roadways and freeways have been found to have higher asthma rates and reduced lung function. There are three carcinogenic TACs that constitute the majority of the known health risks from motor vehicle traffic: DPM from trucks and benzene and butadiene from passenger vehicles. It has been found that outdoor concentrations are highest near the roadway and decrease with increasing distance downwind of the source. The ARB recommends avoiding siting new sensitive land uses within 500 feet of urban roads with more than 100,000 vehicles per day or rural roads with more than 50,000 vehicles per day.²⁸ MM AIR-1d requires that an HRA be performed and potential health impacts be mitigated.

Future development envisioned as a part of the proposed project would be required to comply with AB 2588, and ARB standards for diesel engines. While existing City policies and regulations are intended to minimize impacts associated with sensitive receptors, mitigation measures for future project developments that implement these policies and regulations are identified to ensure that the intended environmental protections are achieved. Compliance with MM AIR-1d would help to ensure that mobile sources of TACs not covered under the Valley Air District permits are considered during subsequent project-level environmental review. This mitigation measure requires the preparation of project-specific technical health risk assessments for certain discretionary large industrial or warehousing uses to evaluate operational-related health risk impacts to further ensure that operational-related emissions are reduced to a less than significant level. However, information regarding operational characteristics of future specific development projects and the associated emissions cannot be determined at the time of this analysis; therefore, cumulative growth within the

²⁸ California Air Resources Board (ARB). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April.

Plan Area could result in an overall impact above the health-based thresholds established by the Valley Air District.

In addition to operational emissions from new stationary sources of emissions and vehicle trips to and within the Plan Area, the proposed project would locate new sensitive receptors (residents) that could be subject to existing sources of TACs within the proposed project boundary. The California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District* concluded that agencies generally subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents.

Compliance with existing regulatory programs, General Plan policies, and MM AIR-1d will serve to reduce the health risk impacts of the proposed project to the extent feasible. However, the proposed project would result in the future development of numerous projects, each contributing incrementally to air emissions affecting sensitive receptors. Thus, it is possible that the proposed project would result in cumulatively significant impacts to sensitive receptors, even if individual projects were each less than significant. This is particularly likely since none of the measures herein would prevent multiple development projects from being constructed concurrently within close proximity to sensitive receptors in such a manner as to cause substantial concentrations within the area. Further, neither the amount of construction occurring nor the exact location within the Plan Area is foreseeable and, as such, it cannot be determined whether the resultant construction emissions could be adequately controlled or reduced to below regulatory thresholds. Without such information, it is not possible to conclude that air pollutant emissions resulting from construction activities would be adequately reduced to the point that sensitive receptors are not exposed to substantial concentrations of air pollutants, and thus a significant and unavoidable impact may result.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement MM AIR-1d.

Level of Significance After Mitigation

Significant and unavoidable impact.

Existing regulations and ordinances would reduce operation-related impacts by reducing air pollutant emissions from stationary and mobile sources. Even with the implementation of new project-specific mitigation measures, cumulative operational emissions resulting from future development would likely exceed Valley Air District thresholds, contributing to the nonattainment designation of the SJVAB for the health-based State and national AAQS. Therefore, the potential impacts from the proposed project to sensitive receptors would be significant and unavoidable.

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.
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Impact Analysis

Odors can cause a variety of responses. The impact of an odor is dependent on interacting factors such as frequency (how often), intensity (strength), duration (in time), offensiveness (unpleasantness), location, and sensory perception. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

Growth within the proposed Plan Area could generate new sources of odors. Odors from the types of land uses that could generate objectional odors (see Table 3.3-7) are regulated under Regulation IV, Prohibitions, Rule 4102, Nuisance, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property.

As further discussed in the “Methodology” section, the Valley Air District has published recommended screening distances, as included in Table 3.3-7, and guidance documentation related to odors, which has been referenced for this analysis.

Construction-related Odors

Potential sources that may emit odors during construction activities include exhaust from diesel construction equipment. However, because of the temporary nature of these emissions, the intermittent nature of construction activities, and the highly diffusive properties of diesel exhaust, nearby receptors would not be affected by diesel exhaust odors associated with project construction. Odors from these sources would be localized and generally confined to the immediate area surrounding the proposed project site. The proposed project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Impacts would be less than significant.

Operational-related Odors

Industrial land uses have the potential to generate objectionable odors. Examples of industrial projects are wastewater treatment plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch manufacturing plants, chemical manufacturing, and food manufacturing facilities. Agricultural operations, such as the existing agricultural land uses currently included in the Plan Area, may also generate odors.

Future developments in the Plan Area could include light industrial land uses such as wastewater treatment plants, and so there is the potential for land uses typically considered to be associated

with odors to be developed in the Plan Area. The proposed project would also develop different types of residential and retail activities, which are not typical odor-generating land uses. Potential impacts from odor sources would be mitigated through compliance with General Plan Policy PU-9-d and by enforcement actions by agencies with regulatory authority over odors. General Plan Policy PU-9-d would ensure that waste and recycling facilities are properly located. The Valley Air District addresses odor issues through Rule 4102– Nuisance. Facilities creating nuisance odors generating public complaints can result in Valley Air District enforcement action.

Future individual development projects consistent with the proposed project will be required to determine whether odors would be a potentially significant impact as part of CEQA review. In addition, projects containing sensitive receptors are likely to be proposed near existing odor sources, such as agricultural operations. Projects proposing new receptors within screening level distances will reduce the impact to less than significant levels. Proposal of a new source within the screening distance would require the applicant to demonstrate that the proposed facility includes odor controls within its design and through implementation of odor management practices to reduce odors to less than significant.

Development consistent with the proposed project could also result in sensitive receptors being constructed within the screening level distances from existing odor sources. These potential odor impacts on new sensitive receptors could be significant. When potential odor impacts on these new sensitive receptors occur, the Valley Air District has authority under Rule 4102 to require the owner of the odor-generating source to take actions that would reduce impacts to less than significant. The Valley Air District provided a record of all odor complaints within the Plan Area from 2018 through 2021 for known sources of odors. No significant odor complaints have been received in the Plan Area or in the vicinity of the proposed project in recent years.

In addition to the existing regulatory programs described above, MM AIR-4 requires developers of projects with the potential to generate significant odor to prepare an odor impact assessment and to implement odor control measures. Compliance with MM AIR-4 would further reduce potential impacts of objectionable odors to below a level of significance. Additionally, implementation of the proposed project's policies would help to minimize the effects of growth and development on air quality.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AIR-4 Prior to future discretionary project approval in the Fresno Southeast Development Area Specific Plan Area (Plan Area), development project applicants proposing a project with the potential to generate significant odor impacts, as determined through review of San Joaquin Valley Air Pollution Control District (Valley Air District) odor complaint history for similar facilities and consultation with the Valley Air District, shall prepare an odor impact assessment and shall implement odor control measures recommended by the Valley Air District or the City as needed to reduce the impact to a level deemed acceptable by the Valley Air District.

Level of Significance After Mitigation

Less than significant impact.

3.3.5 - Cumulative Impacts

The geographic scope of the cumulative impact analysis for Air Quality is the SJVAB. This analysis evaluates whether impacts of the Specific Plan, together with impacts of cumulative development, would result in a cumulatively significant impact with respect to air quality emissions. This analysis then considers whether incremental contribution of the impacts associated with implementation of the Specific Plan would be significant. Both conditions must apply for cumulative effects to rise to the level of significance.

In accordance with the Valley Air District's methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. Because of the extent of the area potentially impacted from cumulative project emissions (i.e., the SJVAB); the Valley Air District considers a project cumulatively significant when project-related emissions exceed the regional emissions thresholds, as discussed in Impact AIR-2 and Impact AIR-3. No significant cumulative impacts were identified with regard to CO hotspots.

Criteria Pollutants

The SJVAB is designated nonattainment for ozone and PM_{2.5}, under the California and national AAQS and nonattainment for PM₁₀ under the California AAQS. Construction of cumulative projects will further degrade the regional and local air quality. Air quality will be temporarily impacted during construction activities. As discussed in Impact AIR-2, construction emissions associated with the proposed Plan would exceed the Valley Air District's regional construction emissions thresholds for VOC, NO_x, CO, PM_{2.5}, and PM₁₀. and NO_x, after implementation of MM AIR-1a and MM AIR-1b. Thus, the proposed project's contribution to cumulative air quality impacts would be cumulatively considerable and therefore significant.

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the annual regional threshold values is not considered by the Valley Air District to be a substantial source of air pollution and does not add significantly to a cumulative impact. As discussed, the Valley Air District Rules 9510 and 9410 would contribute to reducing emissions of NO_x and particulate matter associated with future individual projects accommodated under the proposed Specific Plan and may reduce impacts for these individual development projects to a less than significant level. In addition, the planned improvements, design guidelines, objectives, and policies under the proposed Specific Plan would generally support a more sustainable development pattern in the Plan Area. Creation of more complete neighborhoods, with high-density housing located in proximity to jobs and amenities, in addition to improving the public transit, pedestrian, and bicycle networks and infrastructure would contribute to reducing per capita VMT. However, due to the amount of growth for the proposed Plan Area, operation of the cumulative projects accommodated under the proposed Plan would result in emissions in excess of the Valley Air District regional emissions thresholds for VOC, NO_x, CO, PM₁₀, and PM_{2.5} after implementation of MM AIR-1c. Thus, the proposed Specific Plan's criteria air pollutant emissions would be cumulatively considerable and therefore significant.

Toxic Air Contaminants

The proposed project would permit residential, office, commercial and industrial land uses. Development of the land uses that are allowed under the proposed project may result in stationary sources of TAC emissions, including light industrial facilities, warehouses, dry cleaners, restaurants with charbroilers, or buildings with emergency generators and boilers. While MM AIR-1d would serve to reduce the potential health impacts of TAC emissions in the Plan Area, there is not enough information currently available to quantify the emissions of specific project development that may occur as a part of the proposed project to guarantee a less than significant finding. Furthermore, the construction and operation of multiple projects in the Plan Area may lead to a cumulatively considerable, and therefore significant, amount of TAC emissions.

Objectionable Odors Exposure

As discussed in Impact AIR-4, potential odor sources associated with the proposed project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities; however, construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. Although it is possible other construction activities could occur in proximity concurrent with construction of the proposed project, due to the short duration and intermittent nature of construction-related odors, impacts would be less than cumulatively considerable.

For long-term operation, the proposed project and other cumulative developments would be required to comply with Valley Air District Rule 4102 to prevent occurrences of public nuisances, as well as MM AIR-4, which would require potential future odor-generating industrial projects to mitigate potential impacts. Therefore, odors associated with the proposed project operations would be less than cumulatively considerable.

Level of Cumulative Significance Before Mitigation

Potentially significant impact.

Cumulative Mitigation Measures

Implement MM AIR-1a through MM AIR-1d and MM AIR-4.

Level of Cumulative Significance After Mitigation

Significant and unavoidable impact.

As discussed above, while implementation of MM AIR-1a through MM AIR-1d would serve to reduce criteria air pollutant and TAC emissions generated by the proposed project, there is currently not enough information to quantify emissions of specific project development that may occur under the proposed project. Without quantification to guarantee a less than significant finding, future development projects may still exceed the Valley Air District regional significance thresholds. Additionally, due to the size of the proposed project, there is not sufficient mitigation available to reduce the potential criteria pollutant emissions associated with the proposed project to levels that would not exceed the Valley Air District thresholds of significance. Therefore, cumulative impacts to air quality would be considered to remain significant and unavoidable.

3.4 - Biological Resources

3.4.1 - Introduction

This section describes the existing biological setting and potential effects from project implementation on the project site and the surrounding area. This section also identifies mitigation measures to reduce these potential effects to less than significant levels. Descriptions and analysis in this section are based, in part, on the Fresno General Plan (General Plan), the Fresno Southeast Development Area (SEDA) Specific Plan (Specific Plan), the Fresno Municipal Code (Municipal Code), aerial photographs and maps, existing reports relevant to the Specific Plan area (Plan Area), and the results of database searches.

As further discussed in Chapter 1, Introduction, seven public comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to the proposed project's potential biological resources impact:

- Requests that the Draft PEIR analyzes potential impacts on the special-status species identified in the comment letter and provides necessary mitigation measures to reduce impacts to a less than significant level.
- States that any construction within or near a stream will require a clearance from the California Department of Fish and Wildlife (CDFW) and Streambed Alteration Agreement if buildout would result in alternation or degradation.
- Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the planning area.
- Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impact.
- Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.4.2 - Environmental Setting

Vegetation and Wildlife Habitat

City of Fresno

The City is mainly comprised of previously disturbed urban and developed areas and includes several types of vegetation communities, as further described below.

According to the California Natural Diversity Database (CNDDDB), a total of 11 vegetation communities were identified within the City and its Sphere of Influence (SOI), including two that are considered special-status natural communities by the CDFW. Table 3.4-1, below, describes the

vegetation communities identified in the City and its SOI as well as their associated acreages and percentages of total area.¹

Table 3.4-1: Vegetation Communities within the City

Vegetation Community Type	Total Acreage Within the City and SOI (Acres)	Approximate Percentage of the Total City and SOI
Urban	67,100	63%
Irrigated Row and Field Crops	19,500	18%
Deciduous Orchard	14,500	14%
Lacustrine	3,000	3%
Annual Grassland	1,000	1%
Valley Foothill Riparian	370	Less than 1%
Riverine	270	Less than 1%
Valley Oak Woodland	120	Less than 1%
Barren	106	Less than 1%
Pasture	60	Less than 1%
Northern Claypan Vernal Pool	1	Less than 1%
Notes: SOI = Sphere of Influence Source: California Natural Diversity Database. 2019.		

The City's developed land accounts for approximately 63 percent of the of the City and its SOI and is mostly comprised of commercial, residential, and industrial buildings. The City's developed areas also include roads and parking lots. Approximately 32 percent of the Plan Area contains previously disturbed agricultural lands, orchards, pasture, and row and field crops, located predominately along the outer boundaries of the City and its SOI. Undeveloped and undisturbed areas with native vegetation occur within the remaining 5 percent of the City and its SOI. Further descriptions of these types of vegetation communities, as described in the General Plan, are included in Table 3.4-2, below.²

Table 3.4-2: Vegetation Community Types and Description

Vegetation Community Type	Description
Urban	Urban (developed area) lands have been constructed upon or otherwise covered with a permanent, unnatural surface (e.g., concrete, asphalt, buildings, homes, etc.) or large amounts of debris or other materials.

¹ California Natural Diversity Database (CNDDDB). 2019. Natural Communities and Vegetation. Website: <https://wildlife.ca.gov/Data/CNDDDB>. Accessed December 12, 2024.

² City of Fresno. 2014. Fresno General Plan, Chapter 5 Parks, Open Space, and Schools.

Vegetation Community Type	Description
Irrigated Row and Field Crops	Irrigated Row and Field Crops land occurs most frequently in floodplains or upland areas with high soil quality. Irrigated row and field crops include annual and perennial crops, grown in rows, with open space between the rows. Row and field crops are artificially irrigated and feature a moderate disturbance rate by vehicle and pedestrian encroachment typically associated with farming activities. Species composition changes frequently, both by season and by year.
Deciduous Orchard	Deciduous orchard communities primarily occur where there are flat alluvial soils on valley floors, rolling foothills and relatively steep slopes. Orchard communities are typically comprised of artificially irrigated habitat dominated by one, sometimes several, tree or shrub species planted for cultivation. Trees are typically low and bushy, and the understory is open, with little groundcover. In the City and its SOI, deciduous orchards include a variety of fruit trees (e.g., apples, apricots, cherries, citrus, kiwi, peaches, nectarines, pears, persimmons, plums, pluots, pomegranates, etc.) and/or nut trees and shrubs (e.g., almonds, olives, pistachios, walnuts, etc.). Understory species generally consist of short native and non-native grasses and other herbaceous species.
Lacustrine	Lacustrine communities consist of standing/open waters in topographic depressions (i.e., lakes) or dammed river channels. Lacustrine communities lack persistent emergent vegetation but may have submerged or floating-leaved aquatic vegetation. Generally, lacustrine systems are surrounded by hydrophytic plants, grasses, and trees.
Annual Grassland	Annual grassland communities includes a mix of native and non-native, annual grasses, which often occur in association with ruderal herbs and occasional native annual forbs. The dominant plant species within the annual grassland vegetation community typically include black needlegrass (<i>Nasella sp.</i>), fescue (<i>Vulpia sp.</i>), brome (<i>Bromus sp.</i>), and wild oats (<i>Avena spp</i>), with mustard (<i>Brassica nigra</i>), dove weed (<i>Eremocarpus setigerus</i>), and poppy (<i>Eschscholzia sp.</i>). These grasses germinate with the fall rains, grow during the winter and spring, and wither in the early summer.
Valley Foothill Riparian	Valley Foothill Riparian communities within the City and its SOI occur primarily within mature riparian forests along the San Joaquin River corridor. They typically have a 20 to 80 percent canopy cover with trees that are winter deciduous. Wild grape (<i>Vitis californica</i>) often provides 30 to 50 percent ground cover. There is very little herbaceous understory with the exception of disturbed openings in the canopy cover. The understory typically consists of leaf-litter, fallen limbs, and is often impenetrable for smaller herbaceous plants. Tree canopy species within this community typically includes cottonwood (<i>Populus fremontii</i>), California sycamore (<i>Platanus racemosa</i>), and valley oak (<i>Quercus lobata</i>). Subcanopy species often includes white alder (<i>Alnus rhombifolia</i>), boxelder (<i>Acer negundo</i>), and Oregon ash (<i>Fraxinus latifolia</i>). Typical understory shrub layer plants include wild grape, California blackberry (<i>Rubus ursinus</i>), blue elderberry (<i>Sambucus caerulea</i>), poison oak (<i>Toxicodendron diversilobum</i>), and willows (<i>Salix sp.</i>).
Riverine	Riverine systems consist of linear aquatic communities of flowing, non-tidal waters with a distinct channel and little to no persistent emergent vegetation. Riverine systems may also include areas with abundant submerged or floating-leaved aquatic vegetation. Vegetation communities abutting riverine systems tend to be dominated by trees, shrubs, persistent emergent vegetation, and/or emergent mosses and lichens. This vegetation community occurs near or depends upon a nearby freshwater source or areas with fresh water flow during all or part of the year.
Valley Oak Woodland	Valley oak woodland communities vary from open-canopy savanna-like woodlands to partially closed canopy woodlands but mostly consist of winter deciduous, broad-leaved

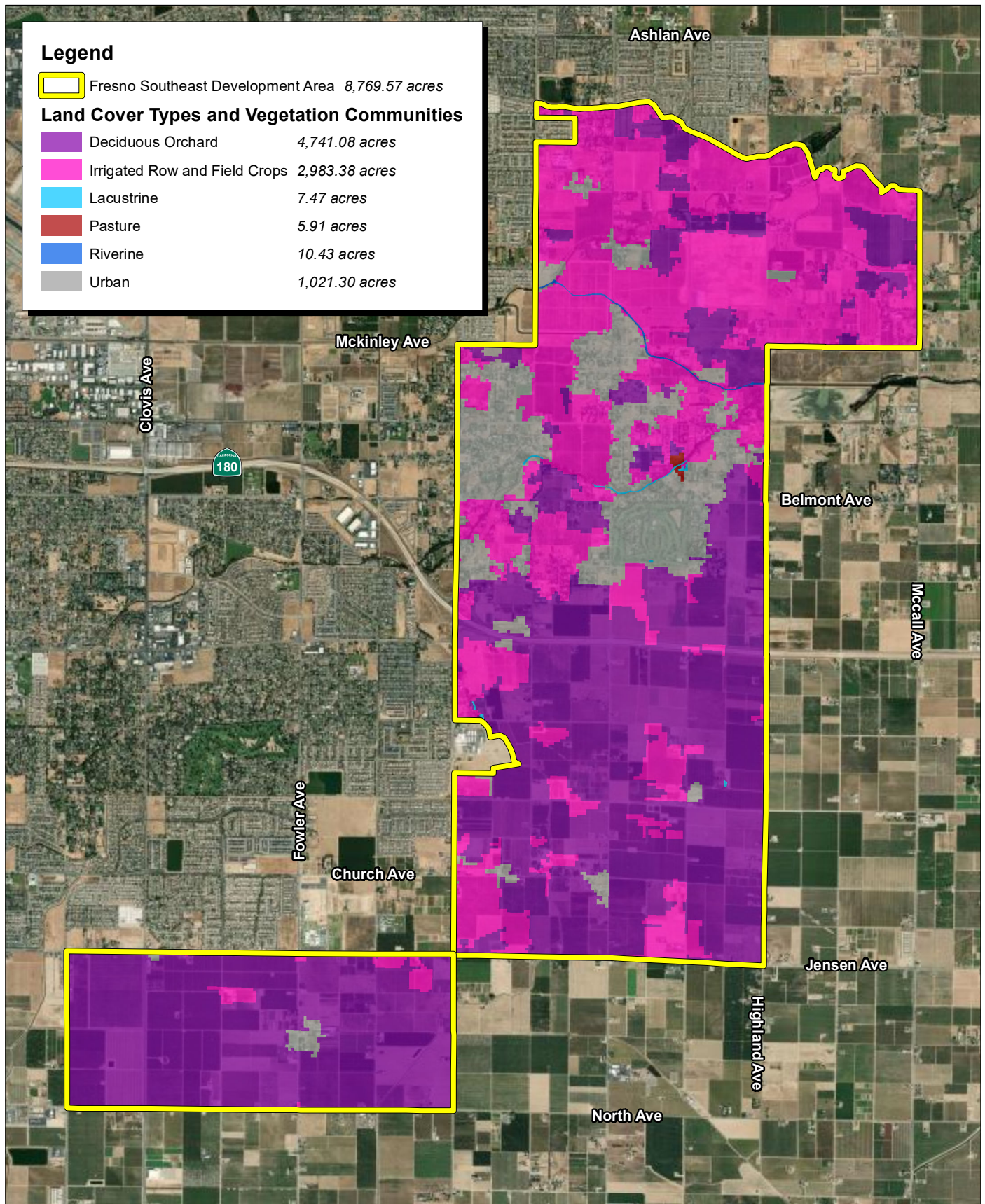
Vegetation Community Type	Description
	species. Valley oak (<i>Quercus lobata</i>), a winter deciduous species and California's largest broad-leaved tree, is usually the only tree species present, although blue oak (<i>Q. douglasii</i>) may also be present. Mature valley oaks can reach heights of 50 to 100 feet (about 15 to 35 meters). Valley oak woodlands typically occur on deep, well-drained alluvial soils in valley bottoms that have a higher summer moisture content. This community intergrades with valley oak riparian near rivers and with blue oak woodlands on drier slopes. Characteristic understory species include creeping wild rye (<i>Elymus triticoides</i>), wild oats (<i>Avena sp.</i>), brome (<i>Bromus sp.</i>), barley (<i>Hordeum sp.</i>), needlegrass (<i>Nassella sp.</i>), and poison oak (<i>Toxicodendron diversilobum</i>).
Barren	Barren communities are areas in which the vegetative cover comprises less than 10 percent of the surface area (disregarding natural rock outcrops) and where there is evidence of soil surface disturbance and compaction from previous legal human activity, and/or areas in which the vegetative cover is greater than 10 percent, soils surface compaction is evident, and building foundations and debris are present (e.g., irrigation piping, fencing, old wells, abandoned farming or mining equipment) from legal activities (as opposed to illegal dumping). Vegetation within barren land has a high predominance of non-native or weedy species that are indicators of soil disturbance, including Russian thistle (<i>Salsola tragus</i>), telegraph weed (<i>Heterotheca grandiflora</i>), horehound (<i>Marrubium vulgare</i>), and sow thistle (<i>Sonchus oleraceus</i>), and a sub-dominance of non-native grasses. Barren land only provides moderately suitable habitat for one special-status species, California horned lark.
Pasture	Pasture lands form a dense habitat with nearly 100 percent cover; usually monoculture crops are planted in these areas, which are irrigated, artificially seeded, and frequently maintained. Characteristic species include non-native grasses such as oat (<i>Avena sp.</i>), bermuda grass (<i>Cynodon sp.</i>), barley (<i>Hordeum sp.</i>), Sorghum grass, as well as clover (<i>Medicago sp.</i>). Often times, this land contains significant areas of bare ground due to livestock grazing and movement across acres of this vegetation community.
Northern Claypan Vernal Pool	The northern claypan vernal pool community is located in an area that is surrounded by a lacustrine vegetation community in the northern portion of the City. Typically, these pools are located within the lower elevations of the main San Joaquin Valley. These areas are typically associated with a series of small mima mounds with interspersed pools. Typically, these pools have highly alkaline and may display whitish salt deposits in non-vegetated centers of dry pools. These vernal pools are dominated by a high percentage of non-native species.
Source: City of Fresno. 2014. Fresno General Plan, Chapter 5 Parks, Open Space, and Schools.	

Plan Area

The Plan Area is located in the southeast portion of the City and its SOI and is composed of six of the 11 vegetation communities/land cover types present in the City and its SOI, as described above. Exhibit 3.4-1 includes a map of the vegetation communities' locations in the Plan Area, and Table 3.4-3, below, lists the vegetation communities, approximate acreage, approximate percentage of the total Plan Area, and suitability for special-status species.^{3,4}

³ Esri. 2022. Aerial Imagery of the City of Fresno. Accessed July 5, 2022.

⁴ City of Fresno. 2014. Fresno General Plan, Chapter 5, Parks, Open Space, and Schools.



Source: ESRI Aerial Imagery.

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Exhibit 3.4-1 Land Cover Types and Vegetation Communities

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Table 3.4-3: Vegetation Communities within the Plan Area

Vegetation Community Type	Approximate Total Acreage Within the Plan Area	Approximate Percentage of the Total Plan Area	Suitability for Special-status Species
Deciduous Orchard	4,741	53%	This community is relatively disturbed, containing very little groundcover and planted trees that provide moderately suitable habitat for only one special-status species: California horned lark.
Irrigated Row and Field Crops	2,983	34%	This community contains active agriculture and is significantly disturbed with altered substrates. This vegetation community does not provide suitable habitat for any special-status plant species and limited habitat for special-status wildlife species: burrowing owl, California horned lark.
Urban	1,021	12%	This community provides poor quality habitat for any special-status species. Special-status species are unlikely to occur within this vegetation community.
Riverine	10	Less than 1%	This community provides a suitable habitat for aquatic species: western yellow-billed cuckoo, tricolored blackbird, hardhead, hoary bat, spotted bat, western pond turtle, and California satintail.
Lacustrine	7	Less than 1%	This community provides a suitable habitat for species that need standing/open waters: western spadefoot, tricolored blackbird, hoary bat, spotted bat, western pond turtle, dwarf downingia, and Sanford's arrowhead.
Pasture	6	Less than 1%	This community contains significant areas of bare ground due to livestock grazing and movement across acres of this vegetation community and is a limited habitat for special-status species: burrowing owl, California horned lark, San Joaquin kit fox, and Swainson's hawk.
Sources: Esri Aerial Imagery. 2022. City of Fresno. 2014. Fresno General Plan.			

As described above, the majority of land cover in the Plan Area, approximately 87 percent, includes deciduous orchard and irrigated row and field crops. Generally, as shown in Exhibit 3.4-1, the majority of deciduous orchard communities in the Plan Area are concentrated in the southern portion of the Plan Area and irrigated row and field crops are concentrated in the northern portion of the Plan Area. Urban lands in the Plan Area are primarily concentrated south of McKinley Avenue and north of State Route (SR) 180.

Special-status Natural Communities

City of Fresno

The City and its SOI contain two special-status natural communities: the valley oak woodland vegetation community and the northern claypan vernal pool vegetation community. Based on a review of the CNDDDB, there are three additional special-status natural communities located in the vicinity of the City and its SOI. These three special-status natural communities include the northern hardpan vernal pool, great valley mixed riparian forest, and sycamore alluvial woodland. Each of these additional three special-status natural communities are associated with stream courses, waterways, drainages, wetlands, and seasonal pools; however, these have not been recorded to occur within the City and its SOI and are, therefore, not likely to occur.⁵

Plan Area

As shown in Exhibit 3.4-1, the Plan Area does not contain any of the special-status natural communities identified in the City and its SOI.

Special-status Species

City of Fresno

The City and its SOI contain potentially suitable habitat for a total of 28 special-status species, which includes 12 plant species and 16 wildlife species. Each of the special-status species with potential to occur (or that are known to occur) within the City and its SOI is described in more detail below.⁶

Special-status Plant Species

A listing of plant species was obtained from the California Native Plant Society (CNPS), and six listed plant species have the potential to occur within the City and its SOI:⁷

- California jewel flower (*Caulanthus californicus*)
- San Joaquin Valley orcutt grass (*Orcuttia inaequalis*)
- hairy orcutt grass (*Orcuttia pilosa*)
- Hartweg's golden sunburst (*Pseudobahia bahiifolia*)
- succulent owl's clover (*Castilleja campestris* ssp. *succulenta*)
- Greene's tuctoria (*Tuctoria greenei*)

In addition to the six listed plant species, there are six additional special-status plant species have the potential to occur in the City and its SOI, including:

- California satintail (*Imperata brevifolia*)
- Madera leptosiphon (*Leptosiphon serrulatus*)
- Sanford's arrowhead (*Sagittaria sanfordii*)
- caper-fruited tropidocarpum (*Tropidocarpum capparideum*)
- spiny-sepaled button-celery (*Eryngium spinosepalum*)
- dwarf downingia (*Downingia pusilla*)

⁵ City of Fresno. 2014. Fresno General Plan, Chapter 5, Parks, Open Space, and Schools.

⁶ Ibid.

⁷ California Native Plant Society (CNPS). 2024. Website: <https://www.cnps.org/>. Accessed December 12, 2024.

Special-status Wildlife Species

A listing of the wildlife species was obtained from the CNDDDB, and a total of seven listed wildlife species have the potential to occur or are known to occur within the City and its SOI.⁸

- California tiger salamander (*Ambystoma californiense*)
- Fresno kangaroo rat (*Dipodomys nitratoide exilis*)
- San Joaquin kit fox (*Vulpes macrotis mutica*)
- Swainson's hawk (*Buteo swainsoni*)
- valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)
- vernal pool fairy shrimp (*Branchinecta lynchi*)
- western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)

In addition to the seven listed wildlife species, there are nine additional special-status wildlife species that have the potential to occur or are known to occur within the City and its SOI,⁹ including:

- American badger (*Taxidea taxus*)
- burrowing owl (*Athene cunicularia*)
- hardhead (*Mylopharodon conocephalus*)
- pallid bat (*Antrozous pallidus*)
- spotted bat (*Euderma maculatum*)
- tricolored blackbird (*Agelaius tricolor*)
- western mastiff bat (*Eumops perotis*)
- western pond turtle (*Emys marmorata*)
- western spadefoot (*Spea hammondi*)

Plan Area

The potential for the Plan Area to support special-status plant and wildlife species is discussed below. The description and legal status of these species is presented in Table 3.4-4 and Table 3.4-5. Figure 3.4-2 shows the records for special-status plants and animals contained within the CNDDDB as of June 2022 within a four quadrangle radius of the Plan Area.

Special-status Plant Species

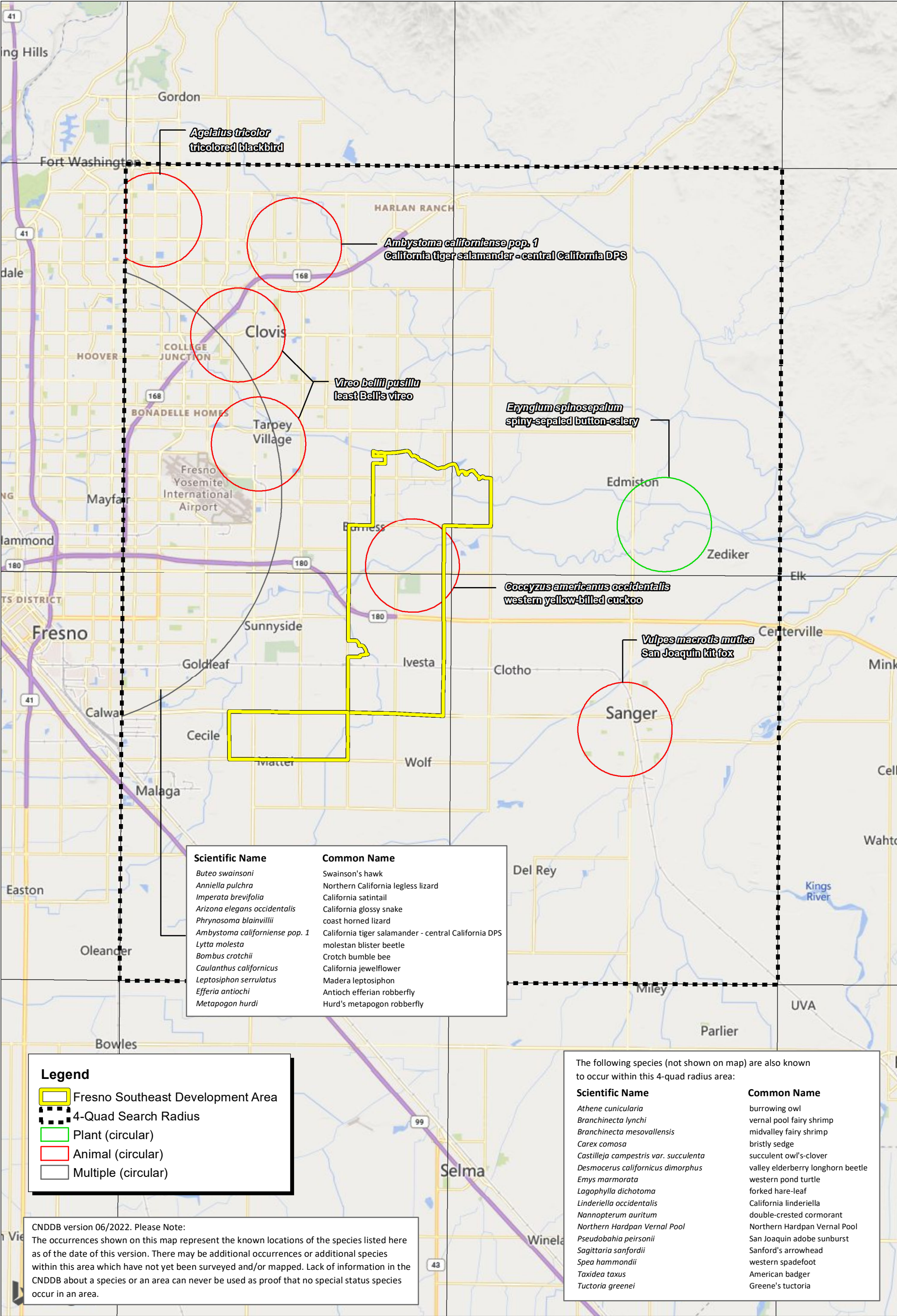
According to the CNDDDB, nine special-status plants have the potential to occur in the Plan Area. Table 3.4-4 describes the three special-status plant species listed for the Plan Area and their legal status as shown on Exhibit 3.4-2 as well as the six plant species and their legal status that are not shown on Exhibit 3.4-2 but are also known to occur within this four quadrangle radius of the Plan Area.¹⁰

⁸ California Natural Diversity Database (CNDDDB). 2019. Natural Communities and Vegetation. Website: <https://wildlife.ca.gov/Data/CNDDDB>. Accessed December 12, 2024.

⁹ Holland, R.F. 1986 (updated 1996). Preliminary Descriptions of the Terrestrial Natural Communities of California. Non-game Heritage Program. California Department of Fish and Game. Sacramento, California.

¹⁰ California Native Plant Society (CNPS). 2022. Rare Plant Program. Rare Plant Inventory (online edition, v9-01 1.5). Website: <https://www.rareplants.cnps.org>. Accessed July 5, 2022.

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Source: Bing Street Imagery. California Natural Diversity Database (CNDDDB), June 2022. USGS Clovis, Round Mountain, Malaga, and Sanger Quadrangles.

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Table 3.4-4: Special-status Plant Species within the Plan Area

Special-status Species Name	Federal Legal Status	State Legal Status	CNPS List and Threat
Shown on Exhibit 3.4-2			
California satintail (<i>Imperata brevifolia</i>)	None	None	CNPS 2B.1
California jewel flower (<i>Caulanthus californicus</i>)	FE	SE	CNPS 1B.1
Madera leptosiphon (<i>Leptosiphon serrulatus</i>)	None	None	CNPS 1B.2
Not Shown on Exhibit 3.4-2			
Bristly sedge (<i>Carex comosa</i>)	None	None	CNPS 2B.1
Succulent owl's clover (<i>Castilleja campestris</i> ssp. <i>succulenta</i>)	FT	SE	CNPS 1B.2
Forked hare-leaf (<i>Lagophylla dichotoma</i>)	None	None	CNPS 1B.1
San Joaquin adobe sunburst (<i>Pseudobahia peirsonii</i>)	FT	SE	CNPS 1B.1
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	None	None	CNPS 1B.2
Greene's tuctoria (<i>Tuctoria greenei</i>)	FE	SR	CNPS 1B.1
<p>Notes:</p> <p>Listing Status: FE = Federally Listed Endangered FT = Federally Listed Threatened FC = Federal Species of Concern SE = State-listed Endangered ST = State-listed Threatened SR = State Rare SSC = California Species of Special Concern SP = State Fully Protected Species</p> <p>CNPS Lists: 1A = Plants presumed extinct in California 1B = Plants rare, threatened, or endangered in California and elsewhere 2 = Plants rare, threatened, or endangered in California, but more common elsewhere 3 = Plants about which more information is needed 4 = Watch List: Plants of limited distribution</p> <p>CNPS Treat Code Extensions: .1 = Seriously endangered in California .2 = Fairly endangered in California .3 = Not very endangered in California</p> <p>Sources: California Natural Diversity Database (CNDDDB) 2022. California Native Plant Society (CNPS) 2022.</p>			

Special-status Wildlife Species

According to the CNDDDB, 18 special-status wildlife species have the potential to occur in the Plan Area. Table 3.4-5 describes the nine special-status wildlife species listed for the Plan Area and their

legal status as shown on Exhibit 3.4-2 as well as the nine special-status wildlife species and their legal status that are not shown on Exhibit 3.4-2 but are also known to occur within this four quadrangle radius of the Plan Area.

Table 3.4-5: Special-status Wildlife Species within the Plan Area

Special-status Species Name	Federal Legal Status	State Legal Status
Shown on Exhibit 3.4-2		
Swainson's hawk (<i>Buteo swainsoni</i>)	None	ST
Northern California legless lizard (<i>Anniella pulchra</i>)	None	SSC
California glossy snake (<i>Arizona elegans occidentalis</i>)	None	SSC
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	None	SSC
California tiger salamander—Central California DPS (<i>Ambystoma californiense</i> pop. 1)	FT	None
Molestan blister beetle (<i>lytta molesta</i>)	—	—
Crotch's bumble bee (<i>bombus crotchii</i>)	—	—
Antioch efferian robberfly (<i>Efferia antiochi</i>)	—	—
Hurd's metapogon robberfly (<i>Metapogon hurdi</i>)	—	—
Not Shown on Exhibit 3.4-2		
Burrowing owl (<i>Athene cunicularia</i>)	None	SSC
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT	None
Midvalley fairy shrimp (<i>Branchinecta mesoallensis</i>)	—	—
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	None
Western pond turtle (<i>Emys marmorata</i>)	None	SSC
California linderiella (<i>Linderiella occidentalis</i>)	—	—
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	—	—
Western spadefoot (<i>Spea hammondi</i>)	None	SSC
American badger (<i>Taxidea taxus</i>)	None	SSC
Notes: Listing Status: FE = Federally Listed Endangered FT = Federally Listed Threatened FC = Federal Species of Concern SE = State-listed Endangered ST = State-listed Threatened SR = State Rare SSC = California Species of Special Concern SP = State Fully Protected Species		

Special-status Species Name	Federal Legal Status	State Legal Status
CNPS Lists: 1A = Plants presumed extinct in California 1B = Plants rare, threatened, or endangered in California and elsewhere 2 = Plants rare, threatened, or endangered in California, but more common elsewhere 3 = Plants about which more information is needed 4 = Watch List: Plants of limited distribution CNPS Treat Code Extensions: .1 = Seriously endangered in California .2 = Fairly endangered in California .3 = Not very endangered in California Source: California Natural Diversity Database (CNDDB) 2022.		

Wetlands and Waters of the United States and the State

City of Fresno

The City and its SOI include a variety of rare plants and wildlife species, particularly along the San Joaquin River, which provides a concentrated riparian plant and animal sanctuary. This area of natural habitat is recognized as unique and scenic given its topographic variation in the characteristically flat San Joaquin Valley. It is a sensitive environment hosting a diversity of wildlife, fish, and plant species, and it contains the last remnants of a true riparian environment, due to the year-round presence of flowing water, which supports aquatic life. This riparian community provides nesting and roosting sites for raptors, herons, egrets, and other bird species (resident and migratory). It also contains special-status species, such as the valley elderberry long horn beetle as well as non-special-status vegetation, such as cottonwood and willow trees. In short, this segment of the river provides habitat diversity of great value to wildlife. Aside from the San Joaquin River, there are several canals that traverse the City and its SOI that provide opportunities for both vegetation and wildlife; however, such opportunities are limited.¹¹

Plan Area

The Plan Area is traversed by several constructed drainage features and natural waterways: Gould Canal, Redbank Slough, Dry Creek Canal, Mill Ditch, Fancher Creek Canal, and Briggs Canal. Some canals in the Plan Area are mostly unvegetated and the banks are enforced with rock or broken asphalt and concrete, with some portions fully concrete-lined. In addition, there are several small ponds and numerous lateral irrigation ditches present that deliver water from the canals to agricultural fields. The Plan Area is not located near the San Joaquin River.

Several unnamed drainages and creeks exist within the Plan Area that may have hydrologic connectivity to a navigable or perennial surface water source or tributary. These may be subject to the jurisdiction of the United States Army Corps of Engineers (USACE) under provisions of Section 404 of the Clean Water Act (1972) and could be directly impacted by uncontrolled runoff or construction. Activities that require a permit under Section 404 of the Clean Water Act will require

¹¹ City of Fresno. 2014. Fresno General Plan. Accessed July 6, 2022.

State water quality certification from the Regional Water Quality Control Board (RWQCB) under Section 401 of the Clean Water Act. Formal wetland delineation is required to understand the limits and extents of such habitats before any construction begins. Many of these area types are generally disturbed, making certain special-status species' presence unlikely.

Wildlife Movement Corridors

The City is highly fragmented by roads and is dominated by several land uses, such as agriculture, residential, industrial, and commercial. Because of this fragmentation, it is unlikely to find corridors for wildlife movement or individual exchanges between populations. Native wildlife nursery sites are unlikely to be successful within the City. The urbanized area of the City provides little existing habitat value for native wildlife species in the agricultural, residential, industrial, and commercial land use areas, so land conversion would not be expected to substantially degrade the existing conditions for native resident or migratory fish or wildlife species, wildlife corridors, or nursery sites. Additionally, the City provides habitats for several species of mammal, the most common of which are raccoons, squirrels, opossums, rats, and bats. The riparian communities within the City provide nesting and roosting sites for raptors, herons, egrets, and other bird species (resident and migratory).

Regulated Trees

Implementation of the proposed project may result in the removal or alteration of existing trees within the boundaries of the Plan Area. Project development within the Plan Area has the potential to impact trees on public property; however, future development would be required to comply with Municipal Code Section 13-305. Municipal Code Section 13-305 protects all public trees in the City, including but not limited to trees that are affecting surface improvements or underground facilities, or are diseased, or are located where construction is being considered or will occur. No person, except authorized City personnel, shall remove, destroy, deface, or injure any tree on public property by any means, including but not limited to: pouring material on or immediately adjacent to any tree, attaching any sign or notice to a tree without supervision of the Director of the City of Fresno Planning and Development Department, causing or encouraging fire around any tree, or covering the ground within a 4-foot radius around any tree with concrete or other unnatural surface. Any removal of trees shall be conducted only after an evaluation and inspection by the Director and written authorization.

3.4.3 - Regulatory Framework

Federal

Endangered Species Act

The United States Fish and Wildlife Service (USFWS) has jurisdiction over species listed as threatened or endangered under the federal Endangered Species Act of 1973. Section 9 of 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 habitat. Additionally, the USFWS designates specific areas as "Critical Habitat" for species listed under the Endangered Species Act.

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.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (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 are protected from take and other impacts under the MBTA (16 United States Code [USC] § 703, *et seq.*).

Bald and Golden Eagle Protection Act

The golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*) are afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC § 669, *et seq.*) and the Bald and Golden Eagle Protection Act (16 USC §§ 668–668d).

Clean Water Act

Section 404

The USACE administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States.

As of the date of this report, the United States Environmental Protection Agency (EPA) and USACE (hereafter the agencies) are in receipt of the U.S. District Court for the District of Arizona’s August 30, 2021, order vacating and remanding the Navigable Waters Protection Rule in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*. In light of this order, these agencies have halted implementation of the Navigable Waters Protection Rule and are interpreting “waters of the United States” consistent with the pre-2015 regulatory regime until further notice.¹²

Therefore, since the agencies are interpreting “waters of the United States” consistent with the pre-2015 regulatory regime until further notice, this analysis follows 40 Code of Federal Regulations 230.3(s), in effect under the pre-2015 regulatory regime, which defines “waters of the United States” as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
2. All interstate waters including interstate wetlands.
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

¹² United States Environmental Protection Agency (EPA). 2021. Website: <https://www.epa.gov/wotus/current-implementation-waters-united-states>. Accessed September 9, 2021.

- a) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - b) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - c) Which are used or could be used for industrial purposes by industries in interstate commerce.
4. All impoundments of waters otherwise defined as waters of the United States under this definition.
 5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section.
 6. The territorial sea.
 7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 Code of Federal Regulations 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the EPA and/or USACE.

“Wetland” refers to areas that are 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. Wetlands generally include swamps, marshes, bogs, and seasonal wetlands. Wetlands are considered jurisdictional if they fall under one of the categories of waters of the United States defined above. The USACE jurisdiction typically extends up to the ordinary high water mark (OHWM).

In general, a USACE permit must be obtained before placing fill in wetlands or other waters of the United States. The type of permit depends on the impacted acreage, the purpose of the proposed fill, and other factors.

Section 401

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 apply for and receive a Section 401 Water Quality Certification from the RWQCB.

State

CEQA Guidelines

The California Environmental Quality Act (CEQA) requires public agencies to evaluate potential impacts to special-status species and their habitat. The following CEQA Guidelines Appendix G checklist questions serve as thresholds of significance when evaluating the potential impacts of a proposed project on biological resources. Impacts are considered significant if a project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on federally and State-protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan.

California Fish and Game Code

Under the California Endangered Species Act (CESA), CDFW has the responsibility for maintaining a list of endangered and threatened species (Fish and Game Code [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 the 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 retrieve (and presumably replant) the plants before they are plowed 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.

In addition to formal listing under the Endangered Species Act and CESA, some species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a “Species of Special Concern.” The CDFW maintains lists of “Species of Special Concern” that serve as species “watch lists.” Species with this status may have limited distributions or limited populations, and/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. In addition to Species of Special Concern, the CDFW Special Animals List identifies animals that are tracked by the CNDDDB and may be potentially vulnerable but warrant no federal interest and no legal protection.

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 and 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 will 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.

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 will 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. CDFW jurisdiction typically extends to the edge or “drip line” of the riparian habitat or top of bank.¹³

California 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)). In 2019, the California State Water Resources Control Board (State Water Board) published the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Procedures) to guide wetland/waters of the State determinations and the permitting process.¹⁴

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 numerous elsewhere

Rank 3: Plants about which more information is needed

Rank 4: Watch List: Plants of limited distribution

Potential impacts to populations of CNPS-ranked plants receive consideration under CEQA review. All plants appearing on the CNPS List ranked 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. Rank 3 and 4 plants do not automatically meet this definition. Rank 4 plants do not clearly meet CEQA standards and thresholds for impact considerations. Nevertheless, some level of CEQA review is justified for California Rare Plant Rank (CRPR) 4 taxa, and under some circumstances, a full impact analysis is warranted. Taxa that can be shown to meet the criteria for endangered, rare, or threatened status under CEQA Section 15380(d) or that can be shown to be regionally rare or unique as defined in CEQA Section 15125(c) must be fully analyzed in a CEQA document. Some circumstances, such as local rarity, having occurrences peripheral to the taxon’s distribution, or having occurrences on unusual substrates or rare and declining habitats, provide justification for treating some CRPR 4 taxa occurrences as regionally rare or unique. One limitation to fully analyzing

¹³ California Department of Fish and Wildlife (CDFW). 2020. California Natural Community List. Updated August 2021. Website: <http://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities>. Accessed January 17, 2022.

¹⁴ California State Water Resources Control Board (State Water Board). 2019. *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. April 2, 2019.

impacts on CRPR 4 taxa is the difficulty in obtaining current data on the number and condition of the occurrences.¹⁵

Oak Woodlands Conservation Act

California SB 1334, the Oak Woodlands Conservation Act, became law on January 1, 2005, and was added to the CEQA statutes as 21083.4. This statute requires that a county must determine whether or not a project will result in a significant impact on oak woodlands and, if it is determined that a project may result in a significant impact on oak woodlands then the county shall require one or more of the following mitigation measures:

- Conserve oak woodlands through the use of conservation easements;
- Plant an appropriate number of trees, including maintenance of plantings and replacement of failed plantings;
- Contribute funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements;
- Other mitigation measures developed by the county.

Local

Habitat Conservation Plan

The proposed project does not lie within the boundaries of any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State HCP.

Fresno General Plan

The General Plan outlines a long-range vision for the physical development of the City that reflects the community's vision to preserve the desirable qualities of the existing community while encouraging the aspirations of the community. The following objectives, policies, and programs are related to biological resources:

Open Space and Biological Resources Element:

- Policy POSS-5-a Habitat Area Acquisition.** Support federal, State, and local programs to acquire significant habitat areas for permanent protection and/or conjunctive educational and recreational use.
- Policy POSS-5-b Habitat Conservation Plans.** Participate in cooperative, multijurisdictional approaches for area-wide habitat conservation plans to preserve and protect rare, threatened, and endangered species.
- Policy POSS-5-c Buffers for Natural Areas.** Require development projects, where appropriate and warranted, to incorporate natural features (such as ponds, hedgerows, and wooded strips) to serve as buffers for adjacent natural areas with high ecological value.

¹⁵ California Native Plant Society (CNPS). 2020. Considerations for Including CRPR 4 Plant Taxa in CEQA Biological. Resource Impact Analysis. Sacramento, CA. January 21, 2020.

- Policy POSS-5-d Guidelines for Habitat Conservation.** Establish guidelines for habitat conservation and mitigation programs, including:
- Protocols for the evaluation of a site's environmental setting and proposed design and operating parameters of proposed mitigation measures.
 - Methodology for the analysis depiction of land to be acquired or set aside for mitigation activities.
 - Parameters for specification of the types and sources of plant material used for any re-vegetation, irrigation requirements, and post-planting maintenance and other operational measures to ensure successful mitigation.
 - Monitoring at an appropriate frequency by qualified personnel and reporting of data collected to permitting agencies.
- Policy POSS-5-e** Pursue development of conjunctive habitat and recreational trail uses in flood control and drainage projects.
- Policy POSS-5-f Regional Mitigation and Habitat Restoration.** Coordinate habitat restoration programs with responsible agencies to take advantage of opportunities for a coordinated regional mitigation program.
- Policy POSS-5-g Assistance in Valley Arboretum Master Planning.** Assist community organizations that have raised grant funds to pursue the preparation of a Valley Arboretum Master Plan and Implementation Program, including funding, to be coordinated with community groups, as well as related plans and policies for established neighborhoods and other areas with park deficiencies.
- Objective POSS-6** Maintain and restore, where feasible, the ecological values of the San Joaquin River corridor.
- Policy POSS-6-a San Joaquin River Parkway Master Plan.** Support the San Joaquin River Conservancy in its efforts to update the San Joaquin River Parkway Master Plan by working with the other jurisdictions and the River Conservancy to create a comprehensive and feasible plan for preservation, conservation, and Parkway development.
- Policy POSS-6-b Effects of Stormwater Discharge.** Support efforts to identify and mitigate cumulative adverse effects on aquatic life from stormwater discharge to the San Joaquin River.
- Avoid discharge of runoff from urban uses to the San Joaquin River or other riparian corridors.
 - Approve development on sites having drainage (directly or indirectly) to the San Joaquin River or other riparian areas only upon a finding that adequate measures for preventing pollution of natural bodies of water from their runoff will be implemented.

- Periodically monitor water quality and sediments near drainage outfalls to riparian areas. Institute remedial measures promptly if unacceptable levels of contaminant(s) occur.

Objective POSS-7 Support the San Joaquin River Conservancy in its collaborative, multiagency efforts to develop the San Joaquin River Parkway.

Policy POSS-7-a Preserve Wildlife Corridors. Acquire and expand natural reserves and wildlife corridors through purchase, easements, mitigation for proposed activities, or other mutually satisfactory transactions.

Policy POSS-7-b Wildlife Corridor along San Joaquin River. Create a wildlife corridor to provide continuous open space land and water areas parallel to the San Joaquin River within the jurisdiction of the City.

- Preserve a minimum width of 200 feet of riparian vegetation on both sides of the river.
- Require the corridor to be wider when possible and/or necessary to protect additional areas of native plants and critical habitat (such as wildlife breeding areas). Re-establishment of a 200-foot or wider band of native plants is recommended in areas where 200 feet of riparian vegetation no longer exists along the river bank, to the maximum extent feasible from topologic and hydrologic standpoints.
- Allow exceptions where the minimum-width corridor is infeasible due to topography, hydrology, or other constraints. An offsetting expansion may be approved in those instances on the opposite side of the river. Incorporate the bluff face into the wildlife corridor where steep bluffs drop directly into or close to the river.

Policy POSS-7-c Monitoring River Corridor Conditions. Undertake periodic monitoring to determine the status of conditions and mitigation measures required for projects within, and in the vicinity of, the river corridor.

- Pursue a Memorandum of Understanding (MOU) or other agreement so that the San Joaquin River Conservancy can perform, or participate in, this monitoring program in order to furnish additional expertise, provide for cost efficiency, and to ensure consistency throughout the river corridor.
- Based on information obtained from monitoring, modifications in special permits, reclamation plans, and other documents, operating parameters for uses may be necessary to insure human health and safety and the well-being of riparian plants and wildlife.

Policy POSS-7-d Buffer Zones near Intensive Uses. Protect natural reserve areas and wildlife corridor areas in the San Joaquin River corridor whenever more intensive human

uses exist or are proposed on adjacent lands. Use buffer zones to allow multiple uses on parts of the parkway while still protecting wildlife and native plants.

- Require studies of appropriate buffer widths to be approved by State and federal wildlife agencies before variances from standard buffer zone widths are granted.
- Maintain natural riparian buffer zones with appropriate native plants (seed material and cuttings locally derived).
- Incorporate open space uses such as pasture, low-intensity agricultural activities, and the “rough” or marginal areas of golf courses, into buffer zones when they constitute an improvement in habitat over a previous use or degraded area. Evaluate and address the potential impacts of construction, cultural, and operational practices (such as grading, number of livestock per acre, lighting, and use pesticides, herbicides, and fertilizers) before these uses are approved for buffering.
- For nearby areas of the San Joaquin River corridor outside the exclusive jurisdiction of the City, support efforts to work with other jurisdictions to achieve this policy.

Fresno Southeast Development Area Specific Plan

The Fresno SEDA Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to biological resources:

Open Space, Schools and Public Facilities

Objective OS-2 Create and maintain an open space network that serves multiple purposes, including recreation, stormwater management, community farming, and environmental preservation.

Policy OS-2.2 **Passive Open Space.** Support community farming and agriculture in appropriate locations within the open space network. See the Community Farming and Agriculture Chapter for details about the SEDA agricultural land typology.

- Pursue partnerships with local organizations to promote agricultural uses in the open space network.

Objective OS-5 Promote the preservation of sensitive natural environments.

Policy OS-5.2 **Habitat Corridors.** Establish contiguous areas of passive open space to provide habitat corridors for local wildlife, including but not limited to riparian and canal greenway corridors, greenway/trail corridors, and parks and flood control facilities throughout the SEDA Plan. Habitat preservation shall be consistent and

coordinated with the findings of the SEDA Environmental Impact Report and subsequent environmental studies and findings.

Fresno Municipal Code

Section 13-305—Tree Preservation

Section 13-305, Tree Preservation, of the Municipal Code establishes a policy to utilize whatever techniques, methods, and procedures are required to preserve, whenever feasible, all trees in the City.

Section 15-306—Special Tree List

Section 13-306, Special Tree List, authorizes the Director to develop and maintain a Special Tree List to give such trees special treatment and care to retain and protect them.

3.4.4 - Methodology

Literature Review

Existing Documentation

FirstCarbon Solutions (FCS) Biologists reviewed existing environmental documentation for the Plan Area and immediate vicinity. This documentation included the City of Fresno General Plan and Municipal Code, noted above, literature pertaining to the habitat requirements of special-status species potentially occurring on or near the planning area, and federal Endangered Species Act listings, protocols, and species data provided by the USFWS and CDFW.

Elevation and Drainage

An FCS Biologist reviewed current United States Geological Survey (USGS) 7.5-minute topographic quadrangle map(s) and aerial photographs as a preliminary analysis of the existing conditions within the project site and immediate vicinity.¹⁶ Information obtained from the topographic maps included elevation, general watershed information, and potential drainage feature locations using Google Earth in conjunction with the EPA Watershed Assessment, Tracking, and Environmental Results System (WATERS).¹⁷ Aerial photographs provided a perspective of the current site conditions relative to on-site and off-site land use, plant community locations, and potential locations of wildlife movement corridors.

Soil

The United States Department of Agriculture (USDA) has published soil surveys that describe the soil series (i.e., group of soils with similar profiles) occurring within a particular area.¹⁸ These profiles include major horizons with similar thickness, arrangement, and other important characteristics. These series are further subdivided into soil mapping units that provide specific information

¹⁶ United States Geological Survey (USGS). 2022. National Geospatial Program. Website: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con. Accessed December 28, 2022.

¹⁷ United States Environmental Protection Agency (EPA). 2022. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: <https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system>. Accessed December 28, 2022.

¹⁸ Natural Resources Conservation Service (NRCS). 2022. Web Soil Survey (WSS). United States Department of Agriculture (USDA). Website: <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed December 28, 2022.

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 inform whether the soil conditions on-site are potentially suitable for any special-status plant species. However, Natural Resources Conservation Service (NRCS) soil maps utilize an approximately 1.4-acre minimum mapping unit and line placement may not be accurate on a large (i.e., parcel-level) scale.

Special-status Wildlife and Plant Species

An FCS Biologist compiled a list of threatened, endangered, and otherwise special-status species previously recorded within the project vicinity based on a search of the USFWS Information for Planning and Consultation (IPaC) database,¹⁹ the CNDDDB and the CNPS Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California for the *Malaga, Sanger, Round Mountain, and Clovis, California* USGS 7.5-minute Topographic Quadrangle Maps.^{20,21} The CNDDDB Biogeographic Information and Observation System (BIOS 5) was used to determine the distance between the known occurrences of special-status species and the Plan Area.²² The database search results can be found in Appendix C.

Jurisdictional Waters and Wetlands

Regulated Trees

Prior to conducting the reconnaissance-level field survey, an FCS Biologist reviewed City ordinances pertaining to tree preservation and protection and ascertained whether tree replacement measures or permits for the removal of protected trees are required.

Vegetation

Taxonomic nomenclature used in this study follows The Jepson Manual: Vascular Plants of California.²³ Common plant names, when not available from The Jepson Manual, were taken from other regionally specific references.

Sensitive Natural Communities

Sensitive natural communities are vegetation communities or special wildlife habitats that are rare or occur in limited distributions or provide specific habitat requirements for special-status plant or wildlife species. The CDFW maintains a list of natural communities which attempts to classify vegetation types found within the State of California and rank them based on rarity. Communities

¹⁹ United States Fish and Wildlife Service (USFWS). 2022. Information for Planning and Consultation (IPaC). Website: <https://ecos.fws.gov/ipac/>. Accessed December 28, 2022.

²⁰ California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Database (CNDDDB) Maps and Data, RareFind 5 internet application. Website: <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. Accessed December 28, 2022.

²¹ California Native Plant Society (CNPS). 2022. California Native Plant Society Rare and Endangered Plant Inventory. Website: <http://www.rareplants.cnps.org/>. Accessed December 28, 2022.

²² California Department of Fish and Wildlife (CDFW). 2022. Biogeographic Information and Observation System (BIOS 5). Website: <https://wildlife.ca.gov/Data/BIOS>. Accessed December 28, 2022.

²³ Baldwin, B. et al. 2012. The Jepson Manual: Vascular Plants of California. Berkeley: University of California Press. County of San Bernardino (Bernardino). 2007 (amended 2015).

ranked S1-S3 are considered sensitive natural communities.²⁴ Riparian vegetation communities are generally considered sensitive.

Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by natural and anthropogenic dispersal barriers, including rugged terrain, changes in vegetation, development, or human disturbance. Urbanization and the resulting fragmentation of open space areas create isolated “islands” of wildlife habitat, forming separated populations. Corridors act as an effective link between populations. Online resources such as eBird and California Herps were consulted, as necessary.^{25,26}

Approach to Analysis

Impacts on biological resources were evaluated based on the likelihood that special-status species, sensitive habitats, wildlife corridors, and protected trees are present within the Plan Area and the likely effects of construction or operation on these resources. For the purposes of this Recirculated Draft PEIR, 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.

In this Biological Resources Analysis, the project site (Plan Area) is defined as all areas directly affected by project development.

3.4.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in the CEQA Guidelines Appendix G Environmental Checklist as thresholds to determine whether impacts to biological resources are significant environmental effects.

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts to resources are significant. These questions reflect the input of planning and environmental professionals at the Governor’s Office of Planning and Research and the California Natural Resources Agency based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. Accordingly, the City has derived its significance criteria, based in part on the questions posed in Appendix G. These significance criteria are as follows:

The proposed project would be considered significant if the project would:

²⁴ California Department of Fish and Wildlife (CDFW). 2022. Sensitive Natural Communities List, Sacramento: California Department of Fish and Wildlife. <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities>. Accessed December 28, 2022.

²⁵ eBird. 2022. Online bird occurrence database. Website: <http://ebird.org/content/ebird/>. Accessed August 28, 2022.

²⁶ California Herps. 2022. A Guide to the Amphibians and Reptiles of California. Website: <http://www.californiaherps.com/>. Accessed December 28, 2022.

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.
- c) 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.
- 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.

3.4.6 - Impact Analysis, Mitigation Measures, and Level of Significance After Mitigation

This section discusses potential impacts associated with the development of the proposed project and provides mitigation measures where appropriate.

Special-status Species

Impact BIO-1:	The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.
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Development under the proposed project would result in additional residential and nonresidential development throughout the Plan Area. Additionally, the proposed project may result in other private and public improvements throughout the Plan Area with the potential for environmental effects related to biological resources. Thus, subsequent development under the proposed project could result in the direct/indirect loss of natural vegetation communities that provide suitable habitat for 27 special-status plant and wildlife species that have the potential to occur or are known to occur within the Plan Area. The vegetation communities within the Plan Area boundary that provide suitable habitat for listed and other special-status species are described above, under Section 3.4.2. Development within the Plan Area could result in the loss or degradation of natural habitats such as lacustrine, riverine, and pasture, which may support special-status plant and wildlife species. Project-related impacts to any of these habitat types may result in a substantial adverse

effect, if it is determined that a special-status species would be impacted, either directly or through habitat modifications.

Special-status Plant Species

A special-status plant species is defined as any plant species which is listed, or proposed for listing, as threatened or endangered by the USFWS under the provisions of the Endangered Species Act.²⁷ This includes any species designated by USFWS as a “candidate” or “species of concern” or species identified on California Native Plant Society’s Lists 1A, 1B, or 2, implying potential danger or extinction.

A significant impact would occur if future development under the proposed project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

Special-status and rare plant surveys were not conducted within the Plan Area. However, as shown on Exhibit 3.4-2, a database search was conducted to identify where rare plants occurrences are located within the Plan Area. The results of that search determined that nine special-species plants have limited potential to occur in the Plan Area, as shown in Table 3.4-4. If individuals of these species are present in the Plan Area, plants could be adversely impacted from development (e.g., soil compaction, trampling, or earthmoving activities) of the Plan Area.

Special-status Wildlife Species

A special-status wildlife species is defined as any wildlife species which is listed, or proposed for listing, as threatened or endangered by the USFWS or National Marine Fisheries Service under the provisions of the Endangered Species Act.²⁸ It also includes any species designated by the CDFW as a “candidate” or “species of concern.”

A significant impact would occur if future development under the proposed project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

Special-status wildlife surveys were not conducted within the Plan Area. However, as shown on Exhibit 3.4-2, a database search was conducted to identify where special-status wildlife is located within the Plan Area. The results of that search determined that 18 special-species wildlife have limited potential to occur in the Plan Area, as shown in Table 3.4-5.

Direct project impacts to species listed as a candidate, sensitive, or special-status species by local, State, and federal agencies should be avoided to the greatest extent feasible; however, it is acknowledged it may not be feasible for future projects to avoid these species. Project-related

²⁷ City of Fresno. 2014. Fresno General Plan. December 18 Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2019/07/ConsolidatedGP6182020.pdf>. Accessed July 7, 2022.

²⁸ City of Fresno. 2014. Fresno General Plan. December 18 Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2019/07/ConsolidatedGP6182020.pdf>. Accessed July 7, 2022.

impacts that result in the direct take of a special-status species may be considered a significant impact. The presence/absence of a special-status species on a project site and the potential to impact a special-status species must be determined prior to project construction. If development within the Plan Area results in the direct take or loss of suitable habitat for any of the 27 special-status species that have the potential to occur in the Plan Area, project-level site-specific mitigation would be required to reduce the potential impacts to less than significant levels. Project impacts to special-status species listed as threatened or endangered by CDFW and/or USFWS may also require agency consultation and/or take permits. However, future development in the Plan Area would be required to comply with the following General Plan policies pertaining to biological resources, specifically within the Parks, Open Space, and Schools Element (POSS), as outlined above. Project-level implementation of the General Plan Policies POSS-5-a through POSS-5-f would reduce potential project impacts to special-status species and their associated habitats. Furthermore, incorporation of Mitigation Measure (MM) BIO-1a to MM BIO-1d into the conditions of approval would ensure that if one or more of these special-status species occur in the Plan Area, their presence would be detected, the risk of mortality would be avoided to the maximum extent feasible.

Additionally, all future development in the Plan Area would be required to comply with the proposed Specific Plan policies pertaining to biological resources, including Policy OS-2.2, which protects passive open space, and Policy OS-5.2, which protects habitat corridors.

Implementation of the City's relevant General Plan policies pertaining to biological resources (POSS-5-a through POSS-5-f); Mitigation Measures (MM BIO-1a to MM BIO-1d); and Specific Plan Policies (OS-2.2 and OS-5.2); would reduce impacts to special-status species to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM BIO-1a Construction of a proposed project shall avoid, where possible, vegetation communities that provide suitable habitat for a special-status species known to occur within the Southeast Development Area (SEDA) Plan Area. If construction within potentially suitable habitat must occur, the presence/absence of any special-status plant or wildlife species must be determined prior to construction, to determine whether the habitat supports any special-status species. If a special-status species are determined to occupy any portion of a project site, avoidance and minimization measures shall be incorporated into the construction phase of a project to avoid direct or incidental take of a listed species to the greatest extent feasible. Specific mitigation measures for direct or incidental impacts to special-status species shall be determined on a case-by-case basis through agency consultation during the review process for discretionary projects, and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.

MM BIO-1b Direct or incidental take of any State or federally listed species shall be avoided to the greatest extent feasible. If construction of a proposed project will result in the

direct or incidental take of a listed species, consultation with the resources agencies and/or additional permitting may be required. Agency consultation through the California Department of Fish and Wildlife (CDFW) 2081 and United States Fish and Wildlife Service (USFWS) Section 7 or Section 10 permitting processes shall take place prior to any action that may result in the direct or incidental take of a listed species. Specific mitigation measures for direct or incidental impacts to special-status species shall be determined on a case-by-case basis through agency consultation during the review process for discretionary projects and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.

MM BIO-1c Development within the Southeast Development Area (SEDA) Plan Area shall avoid, where possible, special-status natural communities and vegetation communities that provide suitable habitat for special-status species. If a proposed project will result in the loss of a special-status natural community or suitable habitat for special-status species, compensatory habitat-based mitigation is required under CEQA and California Endangered Species Act (CESA). Mitigation shall consist of preserving on-site habitat, restoring similar habitat or purchasing off-site credits from an approved mitigation bank. Compensatory mitigation shall be determined through consultation with the City and/or resource agencies. An appropriate mitigation strategy and ratio shall be agreed upon by the Developer and Lead Agency to reduce project impacts to special-status natural communities to a less than significant level. Agreed-upon mitigation ratios shall depend on the quality of the habitat and presence/absence of a special-status species. Specific mitigation measures for direct or incidental impacts to special-status natural communities and vegetation communities shall be determined on a case-by-case basis through agency consultation during the review process for discretionary projects and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.

MM BIO-1d Proposed projects within the Southeast Development Area (SEDA) Plan Area should avoid, if possible, construction within the general nesting season of February through August for avian species protected under Fish and Game Code 3500 and the Migratory Bird Treaty Act (MBTA), if it is determined that suitable nesting habitat occurs on a project site. If construction cannot avoid the nesting season, a qualified Biologist shall conduct a pre-construction clearance survey to determine whether any nesting birds or nesting activity is observed on or within 500 feet of a project site. If an active nest is observed during the survey, a Biological Monitor shall be on-site to ensure that no proposed project activities would impact the active nest. A suitable buffer shall be established around the active nest until the nestlings have fledged and the nest is no longer active. Project activities may continue in the vicinity of the nest only at the discretion of the Biological Monitor. Prior to commencement of grading activities and issuance of any building permits, the Director of the City of Fresno Planning and Development Department, or designee,

shall verify that all proposed project grading and construction plans include specific documentation regarding the requirements of the MBTA and California Fish and Game Code Section 3503, that pre-construction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field. Specific mitigation measures for direct or incidental impacts to avian species protected under Fish and Game Code 3500 and the MBTA shall be determined on a case-by-case basis through agency consultation during the review process for discretionary projects and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Sensitive Natural Communities or Riparian Habitat

Impact BIO-2:	The proposed project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.
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Sensitive natural communities are vegetation communities or special wildlife habitats that are rare or occur in limited distributions or provide specific habitat requirements for special-status plant or wildlife species. The CDFW maintains a list of natural communities which attempts to classify vegetation types found within the State of California and rank them based on rarity. Communities ranked S1-S3 are considered sensitive natural communities.²⁹ Riparian habitat is defined as any habitat with characteristic vegetation relating to or located on the bank of a natural watercourse often described as riparian corridors.

A significant impact would occur if the proposed project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFW.

The Plan Area contains natural communities, primarily along existing creeks and streams. Less than 1 percent of the Plan Area includes riparian habitats (riverine and lacustrine communities), which provide suitable habitat for a number of special-status plant and wildlife species known to occur in the region. The vast majority of future development within the Plan Area is limited to existing disturbed and developed land and within areas that are unlikely to support special-status species.

However, the presence of riparian habitat and/or a sensitive natural community on a project site must be evaluated prior to project approval. Any project-related impacts to riparian habitat and/or a sensitive natural community are considered a significant impact and require mitigation. Project-level implementation of the approved General Plan Objective (POSS-6) and Policies (POSS-6-a and POSS-6-

²⁹ California Department of Fish and Wildlife (CDFW). 2022. Natural Communities List, Sacramento: California Department of Fish and Wildlife. <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities>. Accessed July 6, 2022.

b), and Objective (POSS-7) and Policies (POSS-7-a through POSS-7-d) would reduce potential project impacts to riparian habitats. Further, incorporation of MM BIO-2a through MM BIO-2c would ensure that sensitive natural communities and/or riparian habitats are not significantly impacted. Thus, impacts would be reduced to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM BIO-2a A pre-construction clearance survey, following current California Department of Fish and Wildlife (CDFW) protocols, shall be conducted by a qualified Biologist to determine whether a proposed project will result in the removal or impact to any riparian habitat and/or a special-status natural community with potential to occur in the Southeast Development Area (SEDA) Plan Area, compensatory habitat-based mitigation shall be required to reduce project impacts. Compensatory mitigation must involve the preservation or restoration or the purchase of off-site mitigation credits for impacts to riparian habitat and/or a special-status natural community. Mitigation must be conducted in-kind or within an approved mitigation bank in the region. The specific mitigation ratio for habitat-based mitigation shall be determined through consultation with the appropriate agency (i.e., CDFW or the United States Fish and Wildlife Service [USFWS]) on a case-by-case basis. The project applicant/developer for a proposed project shall develop and implement appropriate mitigation regarding impacts on their respective jurisdictions.

MM BIO-2b A pre-construction clearance survey, following current California Department of Fish and Wildlife (CDFW) protocols, shall be conducted by a qualified Biologist to determine whether a proposed project will result in significant impacts to streambeds or waterways protected under Section 1600 of Fish and Wildlife Code and Section 404 of the Clean Water Act (CWA). The project applicant/developer for a proposed project shall consult with partner agencies such as CDFW and/or the United States Army Corps of Engineers (USACE) to develop and implement appropriate mitigation regarding impacts on their respective jurisdictions, determination of mitigation strategy, and regulatory permitting to reduce impacts, as required for projects that remove riparian habitat and/or alter a streambed or waterway. The project applicant/developer shall implement mitigation as directed by the agency with jurisdiction over the particular impact identified.

MM BIO-2c Prior to project approval, a pre-construction clearance survey, following current California Department of Fish and Wildlife (CDFW) protocols, shall be conducted by a qualified Biologist to determine whether a proposed project will result in project-related impacts to riparian habitat or a special-status natural community or if it may result in direct or incidental impacts to special-status species associated with riparian or wetland habitats. The project applicant/developer for a proposed project shall be obligated to address project-specific impacts to special-status species

associated with riparian habitat through agency consultation, development of a mitigation strategy, and/or issuing incidental take permits for the specific special-status species, as determined by the CDFW and/or the United States Fish and Wildlife Service (USFWS).

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Wetlands and Jurisdictional Features

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.
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Wetlands are defined as areas that are permanently wet or periodically covered with shallow water, such as saltwater and freshwater marshes, open or closed brackish marshes, swamps, mud flats, and fens.³⁰ A significant impact would occur if the construction or operations of the proposed project produced a substantial adverse effect on State or federally protected wetlands including marshes, vernal pools, coastal, etc., through direct removal, filling hydrological interruption, or other means.

Development within the Plan Area, particularly in undeveloped areas with the potential to support wetland habitat (e.g., pasture/grassland), could result in the loss of jurisdictional wetland habitat, which includes vernal pool habitats, seasonal wetlands and waters of the U.S. or intermittent/permanent water bodies. Any project-related impacts that result in the significant alteration or fill of a State or federally protected wetland is considered a significant impact.

Additionally, special-status species associated with wetlands and vernal pool habitats, such as vernal pool fairy shrimp, may be impacted as a result of project impacts to protected wetlands. Project-specific agency (i.e., CDFW, RWQCB, and/or USACE) coordination and/or regulatory permitting would be required to reduce potential project impacts to wetland habitat. The implementation of Policies (POSS-6-a through POSS-7-d) would reduce potential project impacts to wetlands and wetland habitat. Further, implementation of MM BIO-3a and MM BIO-3b would ensure that wetlands are not significantly impacted. Thus, impacts would be reduced to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM BIO-3a If a proposed project will result in the significant alteration or fill of a federally protected wetland, a formal wetland delineation conducted according to the United States Army Corps of Engineers (USACE) accepted methodology is required for each project to determine the extent of wetlands on a project site. The delineation shall be used to determine whether federal permitting and mitigation strategy are

³⁰ City of Fresno. 2014. Fresno General Plan. December 18 Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2019/07/ConsolidatedGP6182020.pdf>. Accessed July 7, 2022.

required to reduce project impacts. Acquisition of permits from USACE for the fill of wetlands and USACE approval of a wetland mitigation plan would ensure a “no net loss” of wetland habitat within the Planning Area. Appropriate wetland mitigation/creation shall be implemented in a ratio according to the size of the impacted wetland.

MM BIO-3b In addition to regulatory agency permitting, Best Management Practices (BMPs) identified from a list provided by the United States Army Corps of Engineers (USACE) shall be incorporated into the design and construction phase of the project to ensure that no pollutants or siltation drain into a federally protected wetland. Project design features such as fencing, appropriate drainage and incorporating detention basins shall assist in ensuring project-related impacts to wetland habitat are minimized to the greatest extent feasible.

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 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.**

A wildlife corridor is defined as a natural corridor, such as an undeveloped ravine, that is frequently used by wildlife to travel from one area to another.³¹ A significant impact would occur if any construction or operations of the proposed project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with an established native resident or migratory wildlife corridors or impede the use of wildlife nursery sites.

As previously discussed, the majority of the Plan Area includes disturbed and agricultural land. These areas are mainly surrounded by existing development and disturbed habitat areas resulting in habitat fragmentation. Because of the isolation of these areas, there are few substantive linkages to consider them as part of a wildlife movement corridor. Regardless, all future development would be required to comply with the approved General Plan, including Policies (POSS-6-a through POSS-7-d) that would reduce impacts to wildlife movement corridors by providing buffer zones, control stormwater runoff, and providing periodic monitoring of the biological resource conditions. These policies would reduce potential impacts to wildlife movement corridors to a less than significant level.

The Municipal Code also includes policies pertaining to fish and wildlife movement corridors that relate to future development within the Plan Area such as Section 12-5.510 also dictates that all practical and reasonable measures should be taken to protect fish and wildlife and preserve wildlife corridors during any operations that require mining related processes.

³¹ City of Fresno. 2014. Fresno General Plan. December 18 Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2019/07/ConsolidatedGP6182020.pdf>. Accessed July 7, 2022.

Additionally, all future development in the Plan Area resulting from the proposed project must comply with the proposed Specific Plan policies pertaining to biological resources, including Policy OS-2.2, which protects passive open space, and Policy OS-5.2, which protects habitat corridors. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Local Policies or Ordinances

Impact BIO-5:	The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
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A significant impact would occur if any construction or operation within the proposed project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Future development projects must meet restrictions mandated by Section 13-305 of the Municipal Code which defines “Protected Trees” and sets forth the requirements for mitigating impacts to protect trees.

Project development within the Plan Area may result in the removal or alteration of existing street and public trees within the boundaries of the Plan Area. Existing preserved trees and landscaped trees within public property, including parkways, must be preserved in order to beautify the City, purify its air, and provide shade for its inhabitants.

Project development within the Plan Area could have the potential to impact trees on public property; however, future development would be required to comply with Article 3 of Chapter 13 of the Municipal Code, as discussed above, which provides for plans and establishes regulations governing the preservation of trees in public property. Compliance with the Municipal Code would reduce any impacts related to conflicts with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Therefore, potential impacts to the City’s public tree ordinance would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Local, Regional, or State Habitat Conservation Plan

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.
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A significant impact would occur if construction or operations within the proposed project would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State HCP.

As discussed above, the Plan Area is not located within the boundaries of any approved or draft HCP, NCCP, or other adopted local, regional or State HCP. Therefore, development within the Plan Area would not result in any impacts to an adopted HCP or NCCP. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

3.4.7 - Cumulative Impacts

The geographical scope of the cumulative impact analysis for Biological Resources is the Plan Area as well as the surrounding cities and communities of Clovis, Sanger, Lone Star, and Las Palmas. This analysis evaluates whether the impacts of the proposed project, together with the impacts of cumulative development, would result in a cumulatively significant impact on special-status species; wetlands and other waters of the United States and/or State; or other biological resources protected by federal, State, or local regulations or policies. This analysis then considers whether incremental contribution to cumulative impacts associated with the implementation of the proposed project would be significant. Both conditions must apply for a project's cumulative effects to rise to the level of significance.

As discussed above, the most direct and indirect impacts would result from construction-related disturbances and residential, industrial, and commercial development. Similarly, potential cumulative impacts would be related to construction. However, as described in the Regulatory Setting section, numerous laws and regulations are in place to protect biological resources, including, but not limited to, CESA, FESA, and the Clean Water Act. Development of future projects within the cumulative geographic context would be required to comply with federal, State, and local laws and policies and all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on biological resources. Because cumulative development would be required to comply with the above requirements, as well as the overall land use vision, design review regulations and policies in local and regional plans, including the Specific Plan, if adopted, and the Municipal Code, cumulative biological impacts will be less than significant.

Moreover, the incremental effect of the proposed project, when combined with the less than significant effects created by other past and reasonably foreseeable projects, would not be cumulatively considerable or significant because future projects implemented under the proposed project would be required to obtain regulatory approvals, comply with the proposed Specific Plan policies and General Plan policies, and implement MM BIO-1a to MM BIO-1d, MM BIO-2a to MM BIO-2c, MM BIO-3a, and MM BIO-3b. The applicable policies and mitigation measures would ensure protection of existing habitat, special-status plant and animal species, and potential wetlands, and

ensure there are no conflicts with existing policies and regulations related to the protection of biological resources within the Plan Area. Also, because it would be speculative to assume the exact location and extent of development that would occur during implementation of the proposed project, future projects would be subject to project-level CEQA analysis which would further identify project-specific impacts and mitigation measures at that time to ensure protection of biological resources. Therefore, implementation of the Specific Plan would not result in a considerable incremental contribution to cumulative impacts to biological resources, because local, State, and federal regulations contain policies and programs to protect sensitive vegetative and wildlife habitat as well as creek corridors. Therefore, the proposed project contribution to cumulative impacts would be less than significant and a less than significant cumulative impact would occur.

Level of Cumulative Significance Before Mitigation

Less than significant impact.

Cumulative Mitigation Measures

None required.

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3.5 - Cultural Resources and Tribal Cultural Resources

3.5.1 - Introduction

This section describes the existing cultural and tribal cultural resources setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on the Fresno General Plan, the Fresno Municipal Code, the Office of Historic Preservation Directory of Properties in the Historic Property Data File for Fresno County, a Southern San Joaquin Valley Information Center (SSJVIC) records search for the Plan Area, the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Built Environment Resource Directory (BERD) for Fresno County, and the California Points of Historical Interest List.

As further discussed in Chapter 1, Introduction, seven public comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to potential impacts to the proposed project's Cultural Resources and Tribal Cultural Resources.

- Request to be notified of all future development under the proposed project that may have impacts on cultural and tribal cultural resources.
- Expressed concern that the Plan Area may contain houses and structures of historical interest (in excess of 100 years of age) with an outside possibility of Yokuts artifacts present.
- Request that the preparation of the Draft PEIR and Specific Plan adhere to Assembly Bill (AB) 52 and Senate Bill (SB) 18.
- Suggest that the City contact the following Tribes to inquire if they are aware of any historical and/or cultural resources in the Plan Area: Table Mountain Ranch, Big Sandy, and Traditional Transundi Tribe.
- Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the Plan Area.
- Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impact.
- Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as SB 743.

3.5.2 - Environmental Setting

Cultural Resources Components

The term “cultural resources” encompasses historic resources, archaeological resources, Tribal Cultural Resources (TCRs) 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 pre-contact indigenous cultures as well as later historic periods.
- **Tribal Cultural Resources:** TCRs include sites, features, places, or objects that are of cultural value to one or more California Native American Tribe.
- **Burial Sites and Cemeteries:** Burial sites and cemeteries are formal or informal locations where human remains have been interred. Burial sites may be associated with pre-contact indigenous cultures as well as later historic periods.

More specifically, cultural resources may be understood as resources that have been formally recognized by a lead agency and/or are listed or determined eligible for listing on the CRHR (Public Resources Code [PRC] § 5024.1, Title 14 California Code of Regulations [CCR] § 4852). It is notable that the fact that a resource is not yet identified as a historical resource or found eligible for the CRHR does not preclude a lead agency from determining that said resource is a historical resource pursuant to Public Resources Code Sections 5020.1(j) or 5024.1. Under the California Environmental Quality Act (CEQA), a substantial adverse change in the significance of a historical resource would constitute a significant effect on the environment.

Cultural Resources Setting

Following is an overview of the pre-contact history, ethnography, and historic background, providing a context in which to understand the background and relevance of sites and structures found in the Plan 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}

General Pre-contact Historic Setting

In North America, radiocarbon dates from existing samples of archaeological materials demonstrate human presence as early as 15,000 years Before Present (BP).⁷ The lithics from the earliest (14,000 to 15,000 BP) documented sites in North America include cores, flakes, and flake tools (e.g., five blades, 14 bladelets, 12 bifaces, one discoidal flake core, 23 edge-modified tools that includes

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.

³ Bennyhoff, J. 1950. Californian Fish Spears and Harpoons. Berkeley: University of California Anthropological Records.

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 and Littlefield Publishers, Inc.

⁷ Waters, M. R., J. L. Keene, S. L. Forman, E. R. Prewitt, D. L. Carlson, J. E. Wiederhold. 2018. Pre-Clovis projectile points at the Debra L. Friedkin site, Texas-Implications for the Late Pleistocene peopling of the Americas. Science Advances.

scrapers and graters from the Debra L. Friedkin site in, Texas) with an absence of projectile points.⁸ The first known projectile points in North America are from 13,000 years BP, with lanceolate fluted points (Clovis Complex) in sites from central and eastern North America, and stemmed projectile points from sites in areas of western North America that were not glaciated.^{9,10} The oldest California radiocarbon date as of 2007 from archaeological materials confirms a human presence in the northeastern part of the State (from site CA-SIS-218) as early as 13,500 years BP.¹¹ The radiocarbon date corresponds to the period of fluted points and fluted points have been found throughout California, although projectile points and other chronologically and culturally informative materials are absent from the SIS-218 sample.^{12,13}

Archaeological sites from the Early Period (12,000 BP to 8,000 BP) are not very well represented in the southern San Joaquin Valley, partially due to periodic episodes of erosion and deposition that have removed or buried large segments of the Early Period landscape. Currently, the earliest evidence of human occupation in the region comes from fluted and basally thinned projectile points in the Tulare Lake basin at the Witt site (KIN-32). Hundreds of Late Pleistocene concave base points have been discovered from human occupation along the remnant shoreline of Tulare Lake in southern Kings County. Artifacts from this site include Clovis-like projectile points made of chert, chipped crescents, various scrapers, and other stone tools associated with the Fluted Point and/or Western Pluvial Lakes tradition. The Witt site also contained faunal bones from horse, bison, ground sloth, and the tusk of a mammoth or mastodon.¹⁴ The bones, including some human bone, has been radiocarbon dated to 11,000 to 13,000 BP.¹⁵

The Middle Horizon (8,000 BP to 2,500 BP) is characterized by an increase in groundstone tools, including metates and manos. Middle Horizon site deposits include an abundance of expedient cobble-based pounding, chopping, scraping, and mulling tools, which reflect an increased dependence on vegetative foods that require processing. Archaeobotanical assemblages from Foothill sites confirm that acorn and pine nuts were targeted food plants.^{16,17} However, the lithic technology remained relatively unchanged from the Early Period, in which stone tools were very

⁸ Waters, M. R., J. L. Keene, S. L. Forman, E. R. Prewitt, D. L. Carlson, J. E. Wiederhold. 2018. Pre-Clovis projectile points at the Debra L. Friedkin site, Texas—Implications for the Late Pleistocene peopling of the Americas. *Science Advances*.

⁹ Jenkins, D. L., L. G. Davis, T. W. Stafford Jr., P. F. Campos, B. Hockett, G. T. Jones, L. S. Cummings, C. Yost, T. J. Connolly, R. M. Yohe II, S. C. Gibbons, M. Raghavan, M. Rasmussen, J. L. A. Paijmans, M. Hofreiter, B. M. Kemp, J. L. Barta, C. Monroe, M. T. P. Gilbert, E. Willerslev. 2012. Clovis Age Western Stemmed Projectile Points and Human Coprolites at the Paisley Caves. *Science* 337.

¹⁰ Beck, C. and G. T. Jones. 2010. Clovis and Western Stemmed: Population migration and the meeting of two technologies in the Intermountain West. *American Antiquity*.

¹¹ Jones, Terry L. and Kathryn A. Klar. 2007. California Prehistory: Colonization, Culture, and Complexity, In *California Prehistory*, Edited by, Terry L. Jones and Kathryn A. Klar. Altimira Press, New York. Kroeber, A.L. 1925. Handbook of the Indians of California. Bulletin 78. Bureau of American Ethnology. Washington, DC. Smithsonian Institution.

¹² Rondeau, Michael F. 2009. Fluted Points of the Far West. *Proceedings of the Society for California Archaeology* 21:265–274

¹³ Rondeau, Michael L., Jim Cassidy, and Terry L. Jones. 2007. Colonization Technologies: Fluted Projectile Points and the San Clemente Island Woodworking/Microblade Complex, In *California Prehistory*, Edited by, Terry L. Jones and Kathryn A. Klar. Altimira Press, New York.

¹⁴ Greenwood and Associates. 2012. Cultural Resources Existing Conditions Report. Fresno Central Southeast Area Specific Plan

¹⁵ Rosenthal, Jeffrey S., Gregory G. White, and Mark Q. Sutton. 2007. The Central Valley: A View from the Catbird's Seat. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Lanham, Maryland: AltaMira Press.

¹⁶ Jones, Terry L. and Kathryn A. Klar. 2007. California Prehistory: Colonization, Culture, and Complexity, In *California Prehistory*, Edited by, Terry L. Jones and Kathryn A. Klar. Altimira Press, New York. Kroeber, A.L. 1925. Handbook of the Indians of California. Bulletin 78. Bureau of American Ethnology. Washington, DC. Smithsonian Institution

¹⁷ Rondeau, Michael L., Jim Cassidy, and Terry L. Jones. 2007. Colonization Technologies: Fluted Projectile Points and the San Clemente Island Woodworking/Microblade Complex, In *California Prehistory*, Edited by, Terry L. Jones and Kathryn A. Klar. Altimira Press, New York.

similar to the Western Pluvial Lakes Tradition.¹⁸ Late Period (2,500 BP to Ethnohistoric Present) The beginning of the Late Period corresponds with the onset of the Late Holocene environmental conditions, marked by an abrupt turn to cooler, wetter, and a more stable climate. Lakes that had dried or diminished during the later parts of the Middle Period returned to higher levels. Cultural diversity was more pronounced marked by artifact styles, contrasting burial positions, and other elements of material culture. People were buried in flexed positions more frequently, and burial goods were more numerous than those from the Middle Period.¹⁹ Both the Olivella shell bead and bow-and-arrow technology made their first appearance in the area. There was also a greater reliance on groundstone tools, indicating an increased dependence on nuts, seeds, and acorns. Villages and smaller residential communities developed along the many streams of the foothills and along the river channels and sloughs of the valley bottom. Occupation sites were also larger, reflecting semi-sedentism.²⁰

Native American Background

Southern Valley Yokuts

At the time of European contact, most of the San Joaquin Valley and the foothills of the western slope of the Sierra Nevada were occupied by 40 or so groups classified together as the Yokuts with a Foothills division and a Valley division of language dialects.²¹ The Yokuts were recognized as having three major subgroups: the Northern Valley, the Foothill, and the Southern Valley. Each of these ethnolinguistic groups was composed of autonomous, culturally, and linguistically related Tribes or Tribelets. Ethnographic evidence suggests the City of Fresno is located in part of the Southern Valley Yokuts territory. The Southern Valley Yokuts were divided into true Tribes, with individual Tribelets having their own name, dialect, and territory and there is no evidence to suggest that they practiced any formal religion.²²

Alfred Kroeber divided a Yokuts classification system into Valley Divisions and Foothill Divisions based on ethnographic lines, geographic habitat, and dialect.²³ Here, the Foothill Division's worldview and economy were influenced more by their Shoshonean neighbors than the Valley Division Yokuts. Later, William Wallace divided the Yokuts into three subgroups, Southern Valley, Northern Valley, and Foothill, and shifted the known Tribelets among these divisions. The following is a review of ethnographic information associated with the Southern Valley Yokuts. The Southern Valley Yokuts occupied a rich environment with abundant water resources from the nearby sloughs, lake basins, and river systems. Swamps and tule marshes surrounded the waterways and teemed with wildlife, including aquatic mammals, fish, and waterfowl. Adjacent grasslands provided food for herds of elk, antelope, and (in the winter) deer. The regional flora was equally, if not more, diverse and was used as a main staple of the Yokuts diet. The Southern Valley Yokuts dietary base relied on a mixed strategy of fishing, waterfowl hunting, shellfish, and plant collecting, with less emphasis on large-game hunting. Important vegetal resources included cattail roots, grasses, nuts, seeds, tule, and

¹⁸ Greenwood and Associates. 2012. Cultural Resources Existing Conditions Report. Fresno Central Southeast Area Specific Plan.

¹⁹ Rosenthal, Jeffrey S., Gregory G. White, and Mark Q. Sutton. 2007. The Central Valley: A View from the Catbird's Seat. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Lanham, Maryland: AltaMira Press.

²⁰ Greenwood and Associates. 2012. Cultural Resources Existing Conditions Report. Fresno Central Southeast Area Specific Plan

²¹ Silverstein, M., 1978. Yokuts: Introduction Handbook of North American Indians California.

²² Gayton, A.H, et al. 1948. Yokuts and Western Mono Ethnography. University of California Press. Berkeley and Los Angeles.

²³ Kroeber, A.L. 1963. Yokuts Dialect Survey. University of California Press. Berkeley and Los Angeles.

bulbs. The resource-rich environment allowed for permanent village sites, which typically were occupied throughout the year.²⁴

The Western Mono

The Western Mono, also called the Monache, consisted of six independent Tribes: the Northfork Mono, the Wobonuch, the Entimbich, the Michahay, the Waksachi and the Patwisha, that were connected by a common language, Numic. Traditionally, the Western Mono resided in the Pine Belt of the western side of the south-central Sierra Nevada Mountain range and were bordered by the Sierra Miwok to the north, Southern Valley Yokuts to the west, Owens Valley Paiute and Tubatulabal to the south and maintained a close relationship with all of their neighbors, with several of the Tribes speaking more than two languages, which served in assisting in trade relations, traveling, and intertribal relations. The Monache were seasonal hunters and gatherers, migrating to different areas and elevations of the Sierra Nevada's in the pursuit of food. Depending on the season and location, the Monache diet generally consisted of deer, bears, rabbit, squirrel, fish and a verity of nuts and fruits. A variety of materials were used for hunting, gathering, and processing food, as well as for shelter, clothing, and luxury items. The primary material for hunting was obsidian knives, arrow points and scrapers which was openly traded among the neighboring Tribes. Feather fire fans made from hawk or vulture tails were used to smoke out smaller animals from their underground holes. Soaproot brushes were pivotal in grinding food on mortars. Men were commonly seen with tumpline used to carry materials and food during their hunting and gathering excursions. Twine, made from sinew, milkweed fiber, and bark, were used for crafting cradles, seed beaters, trays, and storage baskets. The Western Mono did not have a primary village, and settlement locations were determined by the seasons, elevation, and water availability. The Monache relied on three different types of homes that were primarily determined by elevation. The Conical House had an excavated floor and was typically 6-12 feet in diameter. The Oval House was ground level and used at lower elevations, ranged from 10 to 15 feet by 17 to 20 feet and was equipped with a ridgeline. The Conical Bark Covered house was ground level and used at higher elevations.²⁵

The Western Mono were organized along patrilineal lines, with each lineage associated with a totem that was considered the family's pet. The Northfork Mono were the only Tribe known to use moieties associated with social responsibilities within the Tribe assigning the Eagle moiety with the Chief, and the Roadrunner or Dove moiety with the messenger. Prior to European contact, the Monache population was estimated to be close to 5,000 people, making the Monache Tribe one of the most populous of the Central Valley; however, following European contact, population numbers fell dramatically, with some sources putting the surviving population between 6 to 9 percent. Presently, the surviving Western Mono reside in the upper foothills of the Sierra Nevada's, Madera County and Fresno County.²⁶

²⁴ Wallace, William J. 1978. Northern Valley Yokuts. In Handbook of North American Indians. Vol. 8, California, edited by Robert F. Heizer. Washington, D.C: Smithsonian Institution.

²⁵ Spier, R.F., 1978. Monache. Handbook of North American Indians.

²⁶ Loether, C. 1990. Ceremony as Performance: The Western Mono Cry-Dance. Journal of California and Great Basin Anthropology. Website: <http://www.jstor.org/stable/27825423>. Accessed July 11, 2022.

Historic Background

The Spanish Period (1769-1821)

The formalization of Spanish routes in California were established by Father Junipero Serra and Gaspar de Portola in 1769, in what was known as the Portola Expedition. Although the Portola 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.²⁷ The route used by Portola 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.²⁸ 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 first visited the area. The expedition started in San Juan Bautista and to the San Joaquin Plain. Once there, Moraga traversed the several tributaries that fed of the San Joaquin River, discovering and naming the Merced River, and coming upon the Tuolumne, Stanislaus and Mokelumne River. 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.²⁹ The diary kept by Father Duran helped illustrate how the region appeared prior to colonization as well as initial contact with the Yokut people.³⁰

The Mexican Period (1821-1848)

In 1821, Mexico overthrew Spanish rule and the monopoly that the missions had in the area began to decline. By 1833, the Mexican government passed the Secularization Act and the missions were reorganized as parish churches and lost their vast land holdings. Following the Secularization Act, the Mexican government initially planned on redistributing the land holdings to the Native Americans; however, they were instead redistributed to prominent 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. California experienced a period of success with the establishment of the Ranchos, adopting the Spanish ranching traditions and focusing on the herding of cattle as well as adapting to the market trends of the time that included the trade of fur and pelts; however, the constant threat of Russian invasion, the illegal squatting of American immigrants, and a growing threat of rebellion from the mission Indians prevented the region from achieving socio-political stability.³¹ ³² The growing tensions between Mexicans and American settlers led to the Bear Flag Revolt of 1846 led by

²⁷ Farquhar, F.P., 1928. Spanish discovery of the Sierra Nevada. San Francisco, California: Sierra Club, Bulletin, XIII.

²⁸ Hyslop, S.G., 2019. Contest for California: From Spanish Colonization to the American Conquest (Vol. 2). University of Oklahoma Press.

²⁹ Kyle, D.E., Rensch, H.E., Rensch, E.G., Hoover, M.B. and Abeloe, W. 2002. Historic spots in California. Stanford University Press

³⁰ Farquhar, F.P., 1928. Spanish discovery of the Sierra Nevada. San Francisco, California: Sierra Club, Bulletin, XIII.

³¹ Beck, W.A. and Williams, D.A., 1972. California: A history of the Golden State. Doubleday Books.

³² 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.

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.³³ 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. 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 20,385.³⁴

Local History

Fresno County

Fresno County, located in Central California, was established in 1856 from parts of Mariposa, Merced and Tulare Counties and the first county seat was located in the small township of Millerton. Fresno is named after Fresno Creek and the ash trees that surrounded the valley.³⁵ The Fresno community began to grow from small mining settlements along the Fresno River and Kings River, however, its official creation is credited to Moses J. Church, who is called the “Father of Irrigation” and is credited as the organizer of the newly established community.³⁶ Church began to build an irrigation system that diverted water from the Kings River and onto the region using canals and tributaries. The ease of access to water and the affordable land was a primary attraction to people looking for new opportunities. The growing population necessitated a need for the transportation of people and goods and in 1872, the first railroad depot was constructed by Southern Pacific Railroad. This was followed by a larger depot, built in 1889 making the railroad depot a trading center for the whole of the county. Fresno County is home to the cities of Clovis, Coalinga, Firebaugh, Fowler, Fresno, Huron, Kerman, Kingsburg, Mendota, Orange Cove, Parlier, Reedley, Sanger, San Joaquin and Selma, in addition to several unincorporated communities.³⁷ As of January 2022, Fresno County has a population of 1,011,273 and growing.³⁸ Fresno County lies in the heart of the nation’s largest agricultural center, making agricultural business the main source of economic stimulus in the region.³⁹

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 36 Code of

³³ National Park Service (NPS). 2015. Website: <https://www.nps.gov/index.htm>. Accessed July 15, 2022.

³⁴ Cook, S.F., 1976. The population of the California Indians, 1769-1970. University of California Press.

³⁵ California State Association of Counties. 2014. California State Association of Counties. Website: <https://www.counties.org/county-profile/fresno-county>. Accessed July 15, 2022.

³⁶ Thickens, V.E., 1946. Pioneer agricultural colonies of Fresno County. California Historical Society Quarterly.

³⁷ National Park Service (NPS). 2015. Website: <https://www.nps.gov/index.htm>. Accessed July 15, 2022.

³⁸ California Department of Finance. Population Estimates for Cities, Counties, and the State – January 1, 2021, and 2022. Website: <https://dof.ca.gov/forecasting/demographics/estimates-e1/>. Accessed July 5, 2022.

³⁹ Fresno County. 2021. Website: <https://www.co.fresno.ca.us/>. Accessed July 5, 2022.

Federal Regulations 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; or
- 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 Native American lands. The purpose of the 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 Historical 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 Native American Heritage Commission (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 the opportunity to make recommendations for the treatment and disposal of 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 (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 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

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 TCR is a project that may have a significant effect on the environment.” TCRs 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 CR or included in a local register of historical resources.” Under prior law, 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 TCR (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

California Public Resources Code Section 21074—Effects on Tribal Cultural Resources

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 Resources 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).

Health and Safety Code Section 7050.5 (Treatment of Human Remains)

Section 7050.5 of the California Health and Safety Code sets forth provisions related to the treatment of human remains. As the Code states, “every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor” §§except under

circumstances as provided in Section 5097.99 of the Public Resources Code. The regulations also provide guidelines for the treatment of human remains found in locations other than a dedicated cemetery, including responsibilities of the Coroner.

Public Resources Code Section 5097.98 (Discovery of Human Remains)

Section 5097.98 provides protocol for the discovery of human remains. It states that “when the commission receives notification of a discovery of Native American human remains from a County Coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify persons believed to be most likely descended from the deceased Native American.” It also sets forth provisions for descendants’ preferences for treatment of the human remains and what should be done if the commission is unable to identify a descendant.

Local

Fresno General Plan

The General Plan outlines a long-range vision for the physical development of the City that reflects the community’s vision to preserve the desirable qualities of the existing community while encouraging the aspirations of the community. The General Plan includes the following objectives and policies related to cultural and tribal cultural resources:

Historic and Cultural Resources Element

Objective HCR-1 Maintain a comprehensive, citywide preservation program to identify, protect and assist in the preservation of Fresno’s historic and cultural resources.

Policy HCR-1-a **Certified Local Government.** Maintain the City’s status as a Certified Local Government (CLG), and use CLG practices as the key components of the City’s preservation program.

Policy HCR-1-b **Preservation Office, Commission and Program.** Maintain the Preservation Office, Historic Preservation Commission, and preservation program to administer the City’s preservation functions and programs.

Policy HCR-1-c **Historic Preservation Ordinance.** Maintain the provisions of the City’s Historic Preservation Ordinance, as may be amended, and enforce the provisions as appropriate.

Objective HCR-2 Identify and preserve Fresno’s historic and cultural resources that reflect important cultural, social, economic, and architectural features so that residents will have a foundation upon which to measure and direct physical change.

Policy HCR-2-a **Identification and Designation of Historic Properties.** Work to identify and evaluate potential historic resources and districts and prepare nomination forms for Fresno’s Local Register of Historic Resources and California and National registries, as appropriate.

- Policy HCR-2-b** **Historic Surveys.** Prepare historic surveys according to California Office of Historic Preservation protocols and City priorities as funding is available.
- Policy HCR-2-c** **Project Development.** Prior to project approval, continue to require a project site and its Area of Potential Effects (APE), without benefit of a prior historic survey, to be evaluated and reviewed for the potential for historic and/or cultural resources by a professional who meets the Secretary of Interior’s Qualifications. Survey costs shall be the responsibility of the project developer. Council may, but is not required, to adopt an ordinance to implement this policy.
- Policy HCR-2-d** **Native American Sites.** Work with local Native American Tribes to protect recorded and unrecorded cultural and sacred sites, as required by State law, and educate developers and the community-at-large about the connections between Native American history and the environmental features that characterize the local landscape.
- Policy HCR-2-g** **Demolition Review.** Review all demolition permits to determine whether the resource scheduled for demolition is potentially eligible for listing on the Local Register of Historic Resources. Consistent with the Historic Preservation Ordinance, refer potentially eligible resources to the Historic Preservation Commission and as appropriate to the City Council.
- Policy HCR-2-h** **Minimum Maintenance Standards.** Continue to support enforcement of the minimum maintenance provisions of the Historic Preservation Ordinance, as may be amended, and enforce the provisions as appropriate.
- Policy HCR-2-i** **Preservation Mitigation Fund.** Consider creating a Preservation Mitigation Fund to help support efforts to preserve and maintain historic and cultural resources.
- Policy HCR-2-j** **Window Replacement.** City staff will evaluate potential opportunities for identification of window replacements to ensure historic integrity is maintained while encouraging sustainability. In addition, City staff will evaluate window replacements in federally funded housing projects on a project-by-project basis with consideration for health, safety, historic values, sustainability, and financial feasibility.
- Policy HCR-2-k** **City-Owned Resources.** Maintain all City-owned historic and cultural resources in a manner that is consistent with the U.S. Secretary of the Interior’s Standards for the Treatment of Historic Properties, as appropriate.
- Policy HCR-2-m** **Local Register Listing.** Recommend that property owners, who receive funds from the City of Fresno for rehabilitation of a property, consent to listing it on the Local Register of Historic Resources if the property meets the criteria for age, significance, and integrity. Publicly funded rehabilitation properties which may

meet Local Register criteria will be presented to the City’s Historic Preservation Commission for review.

Policy HCR-2-n Property Database and Informational System. Identify all historic resources within the City designated on the Local, State, or National register, and potential significant resources (building, structure, object or site) in existence for at least 45 years, and provide this information on the City’s website.

Objective HCR-3 Promote a “New City Beautiful” ethos by linking historic preservation, public art, and planning principles for Complete Neighborhoods with green building and technology.

Policy HCR-3-a Adaptive Reuse. Promote the adaptive reuse and integration of older buildings into new projects as part of the City’s commitment to nurturing a sustainable Fresno.

Policy HCR-3-b Public Art. Collaborate with the arts community to promote the integration of public art into historic buildings and established neighborhoods. Link arts activities (such as Art Hop) with preservation activities.

Policy HCR-3-c Context Sensitive Design. Work with architects, developers, business owners, local residents and the historic preservation community to ensure that infill development is context-sensitive in its design, massing, setbacks, color, and architectural detailing.

Objective HCR-4 Foster an appreciation of Fresno’s history and cultural resources.

Policy HCR-4-d Public Archives. Maintain public archives that include information on all designated historic properties, as well as historic surveys, preservation bulletins, and general local history reference materials. Post survey reports, Historic Preservation Commission minutes and agendas, and other information of public interest on the historic preservation page of the City’s website.

Fresno Southeast Development Area Specific Plan

The Fresno Southeast Development Area (SEDA) Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Specific Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to cultural and tribal cultural resources:

Cultural and Historic Resources

Objective CR-1 Preserve the region’s culturally significant landscapes outside the Southeast Development Area by reducing development pressure on those landscapes.

Policy CR-1.2 Conversion of Non-Urban Uses. Limit the conversion of culturally significant rural areas outside the current Fresno SOI.

- Objective CR-3** Identify and protect significant structures, sites and landscapes within the Southeast Development Area.
- Policy CR-3.1** **Cultural Resource Surveys.** Conduct surveys for cultural resources. For all activities in the SEDA meeting the California Environmental Quality Act (CEQA) definition of a “project,” the City of Fresno shall ensure that a qualified professional Archaeologist; and historian or architectural historian as appropriate based on-site conditions has conducted focused surveys of the project site before issuing grading permits. If cultural resources (prehistoric or historic) are identified as a result of the survey, a qualified professional Archaeologist/historian shall evaluate the significance of the finds and recommend appropriate mitigation measures for significant resources. The City shall ensure the project applicant or designee implements these mitigation measures. Mitigation may include, but shall not necessarily be limited to, the avoidance of significant and potentially significant resources through changes in project design and/or subsurface testing and data recovery. Such efforts, particularly those involving testing and excavation, shall be conducted in consultation with appropriate Native American representatives identified by the Native American Heritage Commission (NAHC).
- Policy CR-3.2** **Discovery of Cultural Resources.** Protect cultural resources discovered during construction. If previously undocumented cultural materials such as historic building or structure remains; historic artifact deposits or scatters; or prehistoric artifacts such as stone tool flaking debitage, mortars, pestles, shell, or bone are encountered during construction in the SEDA, all ground-disturbing activity shall be suspended temporarily within a 100-foot radius of the find or a distance determined by a qualified professional Archaeologist to be appropriate based on the potential for disturbance of additional resource-bearing soils. A qualified professional Archaeologist shall identify the materials, determine their possible significance, and formulate appropriate mitigation measures. Appropriate mitigation may include no action, avoidance of the resource, and potential data recovery. Ground disturbance in the zone of suspended activity shall not recommence without authorization from the Archaeologist.
- Policy CR-3.3** **Discovery of Remains.** Appropriately address human remains that could be found during construction. If human remains are uncovered during construction in the SEDA, all ground-disturbing activities shall immediately be suspended within a 100-foot radius of the find or a distance determined by a qualified professional Archaeologist to be appropriate based on the potential for disturbance of additional remains.
- Policy CR-3.4** **State Resources.** Identify any resource listed in, or eligible for listing in, the California Register of Historical Resources, including archaeological sites, during the Environmental Impact Report.

- Policy CR-3.5** **Locally Significant Resources.** The City of Fresno shall identify additional cultural resources in road, utility, and other agency and public rights-of-way in the SEDA significant to the San Joaquin Valley and Fresno, such as historic canals and tree-lined boulevards. The City shall convey information on these resources, and appropriate protection measures, to developers, utility companies, and other implementing agencies or stakeholders that might affect these resources.
- Policy CR-3.6** **Resource Protection.** Incorporate historic sites, infrastructure and landscape features into new developments in order to conserve resources and preserve the area’s vernacular landscape and “sense of place.”
- Policy CR-3.7** **Resource Relocation.** The relocation of historic structures should be considered as a last resort for preservation and only when retention in place is infeasible. Moved properties should adhere to the Secretary of Interior’s recommendations.
- Policy CR-3.8** **Alternate Public Improvement Standards.** Develop Alternate Public Improvement Standards (APIs) for historic landscaped roads, if appropriate, to preserve the historic context of the SEDA area.
- Objective CR-4** Develop new mixed-use communities that reflect and establish a regional identity in the design of new buildings and complexes.
- Policy CR-4.1** **Wayside Exhibits.** Incorporate wayside exhibits within new developments that depict the history of the site or region through photographs and text.

Fresno Municipal Code

Article 16 of the Municipal Code is the Historic Preservation Ordinance of the City of Fresno, which seeks to preserve, promote, and improve the historic resources and districts of the City of Fresno for educational, cultural, economic and general welfare of the public; to continue to protect and review changes to these resources and districts which have a distinctive character or a special historic, architectural, aesthetic or cultural value to the City, State, and nation; to continue to safeguard the heritage of the City by preserving and regulating its historic buildings, structures, objects, sites and districts which reflect elements of the City's historic, cultural, social, economic, political and architectural history; to continue to preserve and enhance the environmental quality and safety of these landmarks and districts; to continue to establish, stabilize and improve property values and to foster economic development.⁴⁰

⁴⁰ City of Fresno. 2023. Municipal Code and Charter of the City of Fresno, California. Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH12IMFEHIREOTMITO_ART16HIPROR. Accessed March 22, 2023.

3.5.4 - Methodology

Records Searches to Identify Existing Cultural Resources

Southern San Joaquin Valley Information Center

On April 13, 2022, a records search for the project site and a 0.5-mile radius beyond the Plan Area boundaries, was conducted at the SSJVIC located at California State University, Bakersfield. To identify additional historic properties or resources, the current inventories of the NRHP, the CRHR, the California Historical Landmarks list, the California Points of Historical Interest List, and the BERD for Fresno County were reviewed to determine the existence of previously documented local historical resources. Ethnographic resources were also reviewed for information regarding reported Native American village sites located within the City. It should be noted that the local Fresno Record of Historic Resources does not currently include any sites within the SEDA Specific Plan Area, as it is not yet within the jurisdiction of the City.

Results from the records search indicate 23 resources (one prehistoric and 22 historic era resources) have been recorded within a 0.5-mile radius of the Plan Area. Eleven of those historic era resources are located within the Plan Area (Table 3.5-1). In addition, 49 previous studies are on file with the SSJVIC within a 0.5-mile radius of the Plan Area, 26 of which address locations within the Plan Area itself (Table 3.5-2).

Table 3.5-1: Cultural Resources Recorded within the Plan Area

Resource No.	Resource Description	Date Recorded
P-10-003930	Southern Pacific Railroad, Historic AH07 (Roads/trails/railroad grades), HP11 (Engineering structure)	1998, 1999, 2001, 2002, 2004, 2009, 2010, 2013, 2014, 2015, 2016, 2018
P-10-004675	Burlington Northern Santa Fe Railway, Historic, HP19 (Bridge); HP37 (Highway/trail)—Rail Road	2000, 2019
P-10-004724	7E—Hansen Canal, Historic, HP20 (Canal/aqueduct)	1991, 2001
P-10-005464	8175 Kings Canyon Road Barn and Residence, Historic, HP33 (Farm/ranch)	2005
P-10-006048	Map Reference #119; Arkelian Sahag Life Estate Property, Historic, HP02 (Single-family property); HP04 (Ancillary building)	2002
P-10-006091	Map Reference #14; Fowler Avenue and Harvey Palm Trees, Historic, HP29 (Landscape architecture)	2002
P-10-006092	Map Reference #53; James Call Property, Historic, HP02 (Single-family property); HP04 (Ancillary building)	2002
P-10-006093	Map Reference #50; State of California Property, Historic, HP02 (Single-family property); HP04 (Ancillary building)	2002
P-10-006094	Map Reference #46; William R. Slaton Property, Historic, HP02 (Single-family property)	2002

Resource No.	Resource Description	Date Recorded
P-10-006126	2629 S. Clovis Avenue, Historic, HP06 (1-3 story commercial building); HP33 (Farm/ranch)	2010
P-10-007030	Gould Canal, Historic, HP20 (Canal/aqueduct)	2016
Source: Southern San Joaquin Valley Information Center (SSJVIC) Records Search. April 18, 2022.		

Table 3.5-2: Previous Investigations within the Plan Area

Resource No.	Report Title	Author	Date
FR-00118	Cultural Resources Survey for Rural Residential Development of Tract #4249 in Fresno County	Bissonnette, Linda Dick	1991
FR-00257	Historic Property Survey Report Route 180 Chestnut Avenue to Highland Avenue; 06-FRE-180, R60.9/R6736 06250–342400		1990
FR-00448	An Archaeological Assessment of Six Acres Southeast of Clovis, Fresno County, California	Sutton, Mark Q.	1991
FR-00501	Negative Archaeological Survey Report for the Proposed Subdivision of a Parcel of Land on Belmont Avenue in Fresno County, California	Kus, James	1994
FR-00535	Archaeological Survey Report for a Proposed Upgrade of Rural Route 180 Between Fowler and Cove Avenues, Fresno County, California	McGuire, Kelly R. and Wohlgemuth, Eric	1992
FR-00548	Redbank and Fancher Creeks Intensive Cultural Resources Survey, Fresno County, California	Meighan, Clement, Dillon, Brian, Verano, John, and Indermill, Roc	1987
FR-00578	Archaeological Survey Report for Proposed Channelization on Route 180 at Temperance Avenue, Fresno County, California	O'Connor, Denise	1981
FR-01114	An Archaeological Survey of a Proposed Ponding Basin, Locan Avenue, Fresno County, California	Wren, Donald G.	1995
FR-01115	An Archaeological Survey of the Qualls Property, Fresno County, California—EA 4101	Wren, Donald G.	1995
FR-01130	Archaeological Reconnaissance of the Redbank and Fancher Creek Investigation Area	Wren, Donald G. and Crist, Michael	1975
FR-01608	A Cultural Resources Survey for the Fancher Creek Basin Fill Project, Fresno County, California	Roper, Kristina	1998
FR-01627	Shields/Leonard Fill Site Expansion—Redband Creek Channel Restoration Project Cultural/Historical Resource Report	Wren, Donald G.	1999
FR-01661	A Cultural Resource Study: Stormwater Retention Basin BG Fresno County, California	Wren, Donald G.	2000

Resource No.	Report Title	Author	Date
FR-01748	A Cultural Resource Study Fresno Metropolitan Flood Control District Fill Site E. Shields and Leonard Avenue	Wren, Donald	2001
FR-01797	A Cultural Resource Study for the Clovis Southeast Specific Plan, Clovis, California	Wren, Donald G.	2002
FR-02044	A Cultural Resource Study of the Mathias Property, Fresno County, California	Varner, Dudley M.	2004
FR-02059	Request for SHPO Review of FCC Undertaking (Ivesta/CA-1663D)	Billat, Scott	2005
FR-02223	Second Supplemental Historical Architectural Survey Report for the State Route 180, Chestnut Avenue to Highland Avenue, Fresno County, California	Brady, Jon L.	2002
FR-02356	Cultural Resource Study for a Two Creeks South Project (DeWolf and Leonard) in the City of Clovis, Fresno County, California	Varner, Dudley M.	2010
FR-02439	Results of Architectural History Survey for Verizon Cellular Communications Tower Site—Clovis and Jensen, 2629 S. Clovis Avenue (APN: 316-051-02), Fresno, California 93725	Brian, Hatoff	2010
FR-02453	Second Supplemental Historic Property Survey Report 180 East Rural Expressway Reevaluation—Fowler Avenue to Cove Avenue Fresno County, California	Unknown	2002
FR-02507	Historic Architectural Survey Report for the Rural Highway 180 Project Fowler Avenue to Cove Avenue, Fresno County, California	Mikesell, Stephen D. and Wee, Stephen R.	1992
FR-02579	Cultural Resources Investigation for AT&T Mobility CV2714 "Jensen and Clovis" 5608 East Jensen Avenue, Fresno, California 93725	Losee, Carolyn	2013
FR-02629	Archaeological Sensitivity Assessment Ensite #11227 (250035)/Temperance 7101 E. McKinley Avenue, Fresno, Fresno County, California	Travers, Aniela	2012
FR-02705	Cultural Resources Survey for S Armstrong/Ensite #17742 (263944) 7125 East Kings Canyon Road, Fresno City and County, California	Greenberg, Gregory	2014
FR-02751	Cultural Resources Survey S Armstrong/Ensite #17742 (263944) 7125 East Kings Canyon Road, Fresno, Fresno County, California	Perez, Don C.	2015

Source: Southern San Joaquin Valley Information Center (SSJVIC) Records Search. April 18, 2022.

Native American Heritage Commission Record Search

On April 13, 2022, FCS sent a request to the NAHC in an effort to determine whether any sacred sites are listed on its Sacred Lands File for the project site. A response was received on June 23, 2022, indicating that the Sacred Lands File was positive for the presence of Native American cultural

resources in the Plan Area. The NAHC included a list of 12 Tribal representatives available for consultation who may have additional knowledge of the Plan Area. To ensure that all Native American knowledge and concerns over potential TCRs that may be affected by the proposed project are addressed, a letter containing project information requesting any additional information was sent by FCS to each tribal representative on June 30, 2022. No responses have been received to date. Correspondence related to the NAHC letters and Tribal representatives can be found in Appendix C.

Additionally, in accordance with requirements promulgated by SB 18 and AB 52, the City sent notifications to Tribal representatives from the North Valley Yokuts Tribe, the North Fork Rancheria of Mono Indians, the Cold Springs Rancheria of Mono Indians, the Big Sandy Rancheria of Western Mono Indians, the Wukache Indian Tribe/Eshom Valley Band, the Dumna Wo-Wah Tribal Government, the Traditional Choinumni Tribe, and the Table Mountain Rancheria in June 2023. No replies requesting additional consultation were received within the 90-day consultation period.

3.5.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in CEQA Guidelines Appendix G Environmental Checklist to determine whether 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?
- d) 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 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)?
- e) 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 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?

3.5.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the proposed project and provides mitigation measures where appropriate.

Historic Resources

Impact CUL-1: **The proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.**

Impact Analysis

A substantial adverse change in the significance of a historical resource is defined at Section 15064.5(b)(1) of the CEQA Guidelines as the “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.” Known historic structures are located throughout the Plan Area as described in the preceding sections.

Development under the proposed project would result in additional residential and nonresidential development throughout the Plan Area. Additionally, the proposed project may result in other private and public improvements throughout the Plan Area that could have significant environmental impacts related to historic resources (see Chapter 2, Project Description). Therefore, subsequent development under the proposed project could affect known historic resources or previously unidentified or undesignated resources.

The General Plan includes policies intended to conserve and reduce impacts to historical resources. For example, Policies HCR-2-A through HCR-2-C provide clear guidance on when historic resource surveys and evaluations should be undertaken, as well as noting that the individuals making those evaluations should meet the Secretary of the Interior’s Qualification Standards for their respective roles. Policy HCR-2-g requires that the City review all demolition permits to determine whether buildings scheduled for demolition are potentially eligible for listing on the Local Register of Historic Resources and refer potentially eligible resources to the Historic Preservation Commission.

The SEDA Specific Plan includes policies specifically designed to address the conservation and protection of historical buildings and resources. Policy CR-3.1 requires that surveys for cultural resources are conducted for all projects in the SEDA by a qualified professional Archaeologist and Historian or Architectural Historian as appropriate and that appropriate mitigation measures are implemented. Individual development projects which propose to alter a building or structure greater than 45 years of age at the time an application is deemed complete would also be required to undergo project-specific environmental review in compliance with CEQA Guidelines Section 15064.5, in order for the City to determine whether the building or structure may be a historic resource, and take appropriate action such as requiring additional site-specific or project-specific measures to reduce any potential impacts. Policies CR-3.6 through CR-3.8 further specify steps to be taken to help preserve the historic context of specific resources. The proposed project would also be required to comply with the City’s Historic Preservation Ordinance, which is incorporated as Article 16 in the City’s Municipal Code.

As the City receives development applications for subsequent development under the proposed project, those applications will be reviewed by the City for compliance with the objectives and policies in the General Plan and the SEDA Specific Plan related to the protection of historical

resources. The City's Municipal Code and Zoning Ordinance, which implement the City's General Plan would be reviewed when development applications are received.

In conclusion, development envisioned by the proposed project could result in an increase in new residential and nonresidential development, as well as other public improvements, that could affect known historic resources or previously unidentified or undesignated historic resources within the Plan Area. In addition to and in accordance with the implementation of General Plan and SEDA Specific Plan objectives and policies, MM CUL-1 would ensure that future development projects are appropriately reviewed in terms of potential impacts to historic resources. Future development under the proposed project would therefore not result in significant adverse effects to historical resources and impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM CUL-1 Individual development projects which proposed to alter a building or structure greater than 45 years of age at the time an application is submitted would be required to undergo project-specific environmental review, in compliance with CEQA Guidelines Section 15064.5, in order for the City to determine whether the building or structure may be a historic resource and take appropriate action such as requiring additional site-specific or project-specific measures to reduce any potential impacts. These measures are, but not limited to the following:

- Prior to project development that may affect historical resources (i.e., structures 45 years or older), a historical resources assessment shall be performed by an architectural historian or historian who meets the Secretary of the Interior's Professionally Qualified Standards in architectural history or history. This shall include a records search to determine whether any resources that may be potentially affected by the project have been previously recorded, evaluated, and/or designated in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or a local register. Following the records search, the qualified architectural historian shall conduct a survey in accordance with the California Office of Historic Preservation (OHP) guidelines to identify any previously unrecorded potential historical resources that may be potentially affected by the proposed project. The criteria for determining a historically significant building or structure shall meet one or more of the following criteria:
 - Is associated with events that have made a significant contribution to the broad patterns of local, regional, or national history; or
 - Is associated with the lives of persons significant in local, regional, or national history; or
 - Embodies the distinctive characteristics of a significant architectural style, property type, period, or method of construction; represent the work of an architect, designer, engineer, or builder who is locally, regionally, nationally

- significant, or it is a significant visual feature of the City; possess high artistic values, represent a significant and distinguishable entity whose components may lack individual distinction; or
- That have yielded, or may be likely to yield, information important in prehistory or history.
- Properties identified as historically significant resources, shall contain proper documentation meeting the Historic American Building Survey (HABS) Guidelines that shall be prepared and implemented, as approved by the qualified historian meeting the Secretary of the Interior’s Professional Qualifications Standards. Such documentation shall include drawings, photographs, and written data for each building/structure/element, and provide a detailed mitigation plan, including a monitoring program, recovery, rehabilitation, redesign, relocation, and/or in situ preservation plan.
- To ensure that projects requiring the relocation, rehabilitation, or alternation of a historical resource do not impact the resource’s significance, the Secretary of Interior’s Standards for the Treatments of Historic Properties shall be used to the maximum extent possible. The application of the standards shall be overseen by a qualified architectural historian or historic architect meeting the Professional Qualified Standards. Prior to any construction activities that may affect the historical resource, a report identifying and specifying the treatment of character-defining features and construction activities shall be provided to the City of Fresno for review and approval.
- If a proposed project would result in the demolition or significant alteration of historical resource, such demolition cannot be mitigated to a less than significant level. However, recordation of the resource prior to construction activities will assist in reducing adverse impacts to the resource to the greatest extent possible. Recordation shall take the form of Historic American Buildings Survey, Historic American Engineering Record, or Historic American Landscape Survey documentation, and shall be performed by an architectural historian or historian who meets the Professional Qualified Standards. Documentation shall include an architectural and historical narrative; medium- or large-format black and white photographs, negatives, and prints; and supplementary information such as building plans and elevations, and/or historical photographs. Documentation shall be reproduced on archival paper and placed in appropriate local, State, or federal institutions. The specific scope and details of documentation are to be developed in coordination with the City of Fresno.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

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.
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Impact Analysis

Based on a review of information available at the SSJVIC, portions of the Plan Area have been previously surveyed for archaeological resources. While no known archaeological resource sites have been recorded within the Plan Area, archaeological sites have been recorded within 0.5 mile and the possibility exists that additional undiscovered archaeological sites could be present within the Plan Area.

Development under the proposed project would result in additional residential and nonresidential development throughout the Plan Area. Additionally, the SEDA Specific Plan may result in other private and public improvements throughout the Plan Area that could have significant environmental impacts related to archaeological resources. Therefore, subsequent development under the proposed project could affect known archaeological resources or previously unidentified or undesignated archaeological resources.

The potential for additional archaeological sites to be present within the Plan Area exists but varies by location. Prehistoric habitation sites tend to be situated in proximity to creeks and other areas with a reliable water supply. Task-specific sites or resource procurement sites can be situated in almost any environment conducive to human activity. Buried prehistoric archaeological sites tend to be found on Holocene-era landforms, particularly alluvial fans, floodplains, and areas along rivers and streams. As such, within the Plan Area, the areas around Redbank Creek and Dog Creek have increased potential for buried prehistoric archaeological resources to be present.

Policy CR-3.1 requires that surveys for cultural resources are conducted for all projects in the SEDA Specific Plan Area by a qualified professional Archaeologist as appropriate and that appropriate mitigation measures are implemented should archaeological resources be discovered. Policy CR-3.2 requires that, if any previously undocumented cultural materials discovered during construction of a project in the SEDA Specific Plan Area all ground-disturbing activity shall be suspended temporarily within a 100-foot radius of the find or a distance determined by a qualified professional Archaeologist. The Archaeologist shall determine potential significance and appropriate mitigation measures. The proposed project would also be required to comply with the City's Historic Preservation Ordinance, which is incorporated as Article 16 in the City's Municipal Code.

As the City receives development applications for subsequent development under the proposed project, those applications would be reviewed by the City for compliance with the policies of the General Plan, the SEDA Specific Plan as well as the regulations of the Historic Preservation Ordinance related to archaeological resources. In particular, proposed new developments in the Plan Area would be required to conduct updated records search with the SSJVIC to determine the archaeological sensitivity of the site, as well as be referred to the NAHC and local Native American Tribes. If required, an archaeological survey of the site would be conducted and/or accidental discovery procedures for archaeological resources would be required.

In conclusion, development envisioned by the proposed project could result in new residential and nonresidential development, as well as other public improvements, that could affect known or previously unidentified archaeological resources within the Plan Area. In addition to and in accordance with compliance with General Plan and SEDA Specific Plan policies, as well as the

regulations of the Historic Preservation Ordinance, MM CUL-2 would ensure that future development projects are appropriately reviewed and designed in terms of potential impacts to archaeological resources. Consistent with General Plan and SEDA Specific Plan, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific or project-specific measures to reduce any potential impacts and would ensure that impacts remain less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM CUL-2 To determine the archaeological sensitivity for individual development projects within the City, an archaeological resources assessment shall be performed under the supervision of an Archaeologist that meets the Secretary of the Interior's Professional Qualified Standards for their role. The assessment shall include a California Historical Resources Information System (CHRIS) records search at the Southern San Joaquin Valley Information Center (SSJVIC) and a search of the Sacred Lands File (SLF) maintained by the Native American Heritage Commission (NAHC). The records searches shall determine if the proposed project has been previously surveyed for archaeological resources, identify and characterize the results of previous cultural resource surveys, and disclose any cultural resources that have been recorded and/or evaluated. A Phase I pedestrian survey shall be undertaken in areas that are developed and undeveloped to locate any surface cultural materials.

- If potentially significant archaeological resources are identified through an archaeological resources assessment, and impacts to these resources cannot be avoided, a Phase II Testing and Evaluation investigation shall be performed by an Archaeologist who meets the Secretary of the Interior's Standards prior to any construction-related ground-disturbing activities to determine significance. If resources determined significant or unique through Phase II testing, and site avoidance is not possible, appropriate site-specific mitigation measures shall be established and undertaken. These might include a Phase III data recovery program that would be implemented by a qualified Archaeologist and shall be performed in accordance with the Office of Historic Preservation's (OHP) Archaeological Resource Management Reports (ARMR). The Archaeologist must prepare an archaeological data recovery plan to be reviewed and approved by the Lead Agency prior to the excavation of resources.
- If the archaeological assessment did not identify potentially significant archaeological resources within the proposed project area but indicated the area to be highly sensitive for archaeological resources, this shall be followed by monitoring of all ground-disturbing construction and pre-construction activities in areas with previously undisturbed soil by a qualified Archaeologist. The Archaeologist shall inform all construction personnel prior to construction

activities of the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities within 100 feet of the discovery shall be halted while the resources are evaluated for significance by an Archaeologist who meets the Secretary of the Interior's Standards. If the discovery proves to be significant, the qualified Archaeologist shall make recommendations to the Lead Agency (City of Fresno) on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines.

- If the archaeological assessment did not identify potentially significant archaeological resources but indicates the area to be of medium sensitivity for archaeological resources, an Archaeologist who meets the Professional Qualified Standards shall be retained on an on-call basis. The Archaeologist shall inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities within 100 feet of the discovery shall be halted while the on-call Archaeologist is contacted. If the discovery proves to be significant, the qualified Archaeologist shall make recommendations to the Lead Agency (City of Fresno) on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines.
- Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project site should be recorded on appropriate California Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA Guidelines. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency (City of Fresno) approves the measures to protect these resources. The excavation, study, curation, and/or repatriation of archaeological artifacts recovered as a result of mitigation shall be undertaken in close consultation with the Lead Agency (City of Fresno) and representatives from consulting Native American Tribes, as appropriate. All Reports and DPR forms shall be submitted to the Lead Agency (City of Fresno), the SSJVIC, and the OHP, as required.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Human Remains

Impact CUL-3:	The proposed project could disturb human remains, including those interred outside of formal cemeteries.
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Impact Analysis

Excavation and construction activities allowed under the proposed project may uncover human remains that may not be marked in formal burial locations. Therefore, as future development and infrastructure projects are reviewed by the City, each project would be evaluated for conformance with the General Plan, the SEDA Specific Plan, and the Historic Preservation Ordinance, and other applicable State regulations.

Public Resources Code Section 5097 has specific stop-work and notification procedures to follow when Native American human remains are inadvertently discovered during excavation and construction activities. Section 7050.5 of the California Health and Safety Code sets forth provisions related to the treatment of human remains, including the treatment of human remains found in locations other than a dedicated cemetery and the responsibilities of the Coroner. These requirements apply to all construction projects within the Plan Area.

The SEDA Specific Plan includes policies intended to conserve and reduce impacts to archaeological resources, including human remains. Policy CR-3.1 requires that surveys for cultural resources are conducted for all projects in the SEDA Specific Plan Area by a qualified professional Archaeologist as appropriate and that appropriate mitigation measures are implemented should archaeological resources be discovered. Policy CR-3.3 requires that, if human remains are uncovered during construction in the SEDA Specific Plan Area, all ground-disturbing activities shall immediately be suspended within a 100-foot radius of the find or a distance determined by a qualified Archaeologist to be appropriate based on the potential for disturbance of additional remains.

In addition to and in accordance with the implementation of policies in the SEDA Specific Plan, as well as compliance with adopted State, federal and local regulations for the protection of archaeological resources and human remains, MM CUL-3 would ensure that future development under the proposed project would not result in significant adverse effects to human remains. Therefore, impacts would be considered less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM CUL-3 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; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. If during

the course of any future development project 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 appropriate treatment and disposition of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources 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 a 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 site, 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 applicant may develop a plan 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 with mitigation incorporated.

Listed or Eligible Tribal Cultural Resources

Impact CUL-4: The proposed project could 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 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).

Impact Analysis

On April 13, 2022, a letter was sent to the NAHC to determine whether any sacred sites are listed on its Sacred Lands File (SLF) for the Plan Area. A response was received on June 23, 2022, indicating the search returned positive results for TCRs in the Plan Area (see Appendix C). Furthermore, it is always possible that subsurface excavation activities may encounter previously undiscovered TCRs that may meet the eligibility requirements for listing in the CRHR. Therefore, any unidentified TCRs could be adversely affected by development under the proposed project and create a potentially significant impact.

While the proposed project does not directly propose any adverse changes to any recorded TCRs, future development allowed under the proposed project could affect known or previously unidentified TCRs. In addition, the potential for additional undiscovered eligible TCRs to be present within the Plan Area exists but varies by location. As with prehistoric archaeological resources, the areas around Redbank Creek and Dog Creek have increased potential for buried TCRs to be present.

The General Plan includes policies intended to conserve and reduce impacts to TCRs. Policy HCR-2-d requires that the City works with local Native American Tribes to protect recorded and unrecorded cultural and sacred sites, as required by State law.

The SEDA Specific Plan includes policies intended to conserve and reduce impacts to TCRs and archaeological resources, which may include TCRs. Policies CR-3.1 through CR-3.3 require that surveys for cultural resources, and detail procedures to be followed in the event archaeological resources or human remains are encountered. The proposed project would be required to comply with the City's Historic Preservation Ordinance, which is incorporated as Article 16 in the City's Municipal Code, and future projects within the SEDA Specific Plan Area would be subject to tribal consultation requirements under AB-52 as applicable.

Additionally, in accordance with requirements promulgated by SB 18 and AB 52, the City sent notifications to Tribal representatives from the North Valley Yokuts Tribe, the North Fork Rancheria of Mono Indians, the Cold Springs Rancheria of Mono Indians, the Big Sandy Rancheria of Western Mono Indians, the Wuksache Indian Tribe/Eshom Valley Band, the Dumna Wo-Wah Tribal Government, the Traditional Choinumni Tribe, and the Table Mountain Rancheria in June 2023. No replies requesting additional consultation were received within the 90-day consultation period.

By adhering to the policies and actions in the General Plan, SEDA Specific Plan, and the City's Historic Preservation Ordinance, the provisions under State and federal law, and MM CUL-1 through MM

CUL-3, potential impacts to existing or undiscovered eligible TCRs within the Plan Area would be reduced to less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implementation of MM CUL-1, MM CUL-2, and MM CUL-3.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Lead Agency Determined Tribal Cultural Resources

Impact CUL-5: The proposed project could 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 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.

Impact Analysis

On April 13, 2022, a letter was sent to the NAHC to determine whether any sacred sites are listed on its SLF for the Plan Area. A response was received on June 23, 2022, indicating the search returned positive results for TCRs in the Plan Area, and recommended contacting Tribal representatives from 12 Tribes for additional information. A letter containing project information requesting any additional information was sent by FCS to each tribal representative on June 30, 2022. No responses have been received to date. (See Appendix C).

Additionally, in accordance with requirements promulgated by SB 18 and AB 52, the City sent notifications to Tribal representatives from the North Valley Yokuts Tribe, the North Fork Rancheria of Mono Indians, the Cold Springs Rancheria of Mono Indians, the Big Sandy Rancheria of Western Mono Indians, the Wuksache Indian Tribe/Eshom Valley Band, the Dumna Wo-Wah Tribal Government, the Traditional Choinumni Tribe, and the Table Mountain Rancheria in June 2023. No replies requesting additional consultation were received within the 90-day consultation period.

At this time, the City, in its capacity as Lead Agency, has not identified any TCRs meeting the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 that would be adversely impacted by the proposed project. Nonetheless, as described under Impact CUL-4, future development allowed under the proposed project could affect previously unidentified TCRs.

As discussed under Impact CUL-4, the SEDA Specific Plan includes policies to conserve and reduce impacts to TCRs, such as Policy CR-3.1, Policy CR-3.2, and Policy CR-3.3. Future projects within the SEDA Specific Plan Area would also be subject to tribal consultation requirements under AB-52 as applicable. By adhering to the policies and actions in the General Plan Update, the provisions under

State and federal law, and MM CUL-1 through MM CUL-3 potential impacts to existing or undiscovered eligible TCRs within the Plan Area would be reduced to less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implementation of MM CUL-1, MM CUL-2, and MM CUL-3.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

3.5.7 - Cumulative Impacts

The geographic scope of the cumulative impact analysis for cultural and TCRs is the SEDA Specific Plan Area as well as the City of Fresno, adjacent communities in the City of Clovis, and unincorporated Fresno County. This analysis evaluates whether the impacts of the proposed project, together with the impacts of cumulative development, would result in a cumulatively significant impact on cultural resources and TCRs. This analysis then considers whether incremental contribution to cumulative impacts associated with the implementation of the proposed project would be significant. Both conditions must apply for a project's cumulative effects to rise to the level of significance.

Future development within the cumulative geographic scope could have significant cumulative impacts on known or previously unidentified cultural resources and TCRs. However, development within the cumulative geographic context would be required to comply with federal, State, and local laws and policies that protect cultural and TCRs, including the provisions of SB 18 and AB 52, Section 15064.5 of the CEQA Guidelines, Section 7050.5 of the California Health and Safety Code, and Sections 5024.1 and 5097 of the Public Resources Code. Compliance with these policies may also require development projects to prepare site-specific project-level analysis to fulfill CEQA requirements, which also would include additional consultation that could lead to the identification of potential site-specific cultural and TCRs. Accordingly, because cumulative development would be required to comply with long-term planning documents, and regulatory agency policies (including, but not limited to, evaluation requirements and inadvertent discovery procedures) that reduce impacts to potential cultural and TCRs, cumulative 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 implementation of the policies and actions proposed in the SEDA Specific Plan. As analyzed above, Policy CR-3.1 requires that surveys for cultural resources are conducted for all projects in the SEDA Specific Plan Area by a qualified professional Archaeologist as appropriate and that appropriate mitigation measures are implemented should archaeological resources be discovered. Policy CR-3.2 requires that, if any previously undocumented cultural materials discovered during construction of a project in the SEDA Specific Plan Area all ground-disturbing activity shall be suspended temporarily within a 100-foot radius of the find or a distance determined by a qualified professional Archaeologist. The Archaeologist shall determine potential

significance and appropriate mitigation measures. Policy CR-3.3 requires that, if human remains are uncovered during construction in the SEDA Specific Plan Area, all ground-disturbing activities shall immediately be suspended within a 100-foot radius of the find or a distance determined by a qualified Archaeologist to be appropriate based on the potential for disturbance of additional remains. The proposed project would also be required to comply with the City's Historic Preservation Ordinance, which is incorporated as Article 16 in the City's Municipal Code.

As discussed under Impacts CUL-1 through CUL-5, as the City receives development applications for subsequent development under the proposed project, those applications would be reviewed by the City for compliance with the policies of the General Plan, the SEDA Specific Plan, the provisions of SB 18 and AB 52, the Historic Preservation Ordinance, and other relevant federal, State, and local regulations that protect cultural and TCRs, including Section 15064.5 of the CEQA Guidelines and Sections 5024.1 and 5097 of the Public Resources Code. Future individual development projects would further be required to comply with MM CUL-1, MM CUL-2, and MM CUL-3, described above.

Other municipalities within the cumulative geographic context have adopted similar policies to preserve and protect known or previously unidentified cultural and TCRs. Therefore, cumulative impacts from implementation of the proposed project would not result in a considerable incremental contribution to cumulative impacts to cultural and TCRs. In addition, the SEDA Specific Plan contains policies to protect cultural and TCRs, and future development within the cumulative geographic context would be required to comply with regulations set forth by local, State, and federal agencies to protect cultural and TCRs. Therefore, the proposed project's contribution to cumulative impacts would be less than significant.

Level of Cumulative Significance Before Mitigation

Potentially significant impact.

Cumulative Mitigation Measures

Implement MM CUL-1, MM CUL-2, and MM CUL-3.

Level of Cumulative Significance After Mitigation

Less than significant impact with mitigation incorporated.

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3.6 - Energy

3.6.1 - Introduction

This section describes the existing energy setting in the project area as well as the relevant regulatory framework. This section also evaluates the possible impacts related to energy that could result from implementation of the project. Information in this section is based, in part, on project-specific energy calculation outputs included in Appendix E. No public comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to energy.

3.6.2 - Existing Setting

Energy Basics

Energy is generally transmitted either in the form of electricity, measured in kilowatts (kW)¹ or megawatts (MW),² or natural gas measured in British Thermal Units (BTU), or cubic feet.³ Fuel, such as gasoline or diesel, is measured in gallons or liters.

Electricity

Electricity is used primarily for lighting, appliances, and other uses associated with the project.

Natural Gas

Natural gas is used primarily for heating, water heating, and cooking purposes and is typically associated with commercial and residential uses.

Fuel

Fuel is used primarily for powering off-road equipment, trucks, and passenger vehicles. The typical fuel types used are diesel and gasoline.

Electricity Generation, Distribution, and Use

State of California

The State of California generates approximately 206,336 gigawatt-hours (GWh) of electricity. Approximately 43.0 percent of the energy generation is sourced from natural gas, 32.1 percent from renewable sources (i.e., solar, wind, and geothermal), 16.5 percent from large hydroelectric sources, and the remaining 8.4 percent is sourced from coal, nuclear, oil, and other nonrenewable sources.⁴

In 2021, California was the nation's top producer of electricity from solar, geothermal, and biomass energy. The State was fourth in the nation in conventional hydroelectric power generation, down from second in 2019, in part because of drought and increased water demand. In 2021, California

¹ 1 kW = 1,000 watts; A watt is a derived unit of power that measure rate of energy conversion. 1 watt is equivalent to work being done at a rate of 1 joule of energy per second. In electrical terms, 1 watt is the power dissipated by a current of 1 ampere flowing across a resistance of 1 volt.

² 1 MW = 1 million watts

³ A unit for quantity of heat that equals 100,000 British Thermal Units (BTUs). BTU is the quantity of heat required to raise the temperature of 1 pound of liquid water 1°F (degree Fahrenheit) at a constant pressure of 1 atmosphere.

⁴ California Energy Commission (CEC). 2022. 2019 Total System Electric Generation. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2020-total-system-electric-generation/2019>. Accessed June 30, 2022.

was the fourth-largest electricity producer in the nation. In 2019, California was the second largest total energy consumer among the states, but its per capita energy consumption was less than in all other states except Rhode Island, due in part to its mild climate and its energy efficiency programs.

Electricity and natural gas are distributed through the various electric load-serving entities (LSEs) in California. These entities include investor-owned utilities (IOUs), publicly owned LSEs, rural electric cooperatives, community choice aggregators, and electric service providers.⁵

Fresno County

End-use electricity and gas customers in Fresno County are served solely by Pacific Gas and Electric Company (PG&E) to meet electrical power demands. As of 2019, PG&E's portfolio contains 30 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 Fresno County is used herein to generally characterize the City's existing electricity consumption. Fresno County includes several incorporated cities and a large unincorporated area. According to the California Energy Commission (CEC), Fresno County consumed approximately 7,444.9 GWh in 2019.⁷ Note that year 2019 was used over reporting year 2020 to present a pre-COVID-19 pandemic level of energy usage.

Project Site

The project site contains open space and natural features, as well as existing development, such as residential, commercial, light industrial, and agricultural uses, that currently use electricity from existing utilities.

Natural Gas Generation, Distribution, and Use

State of California

Natural gas is used for everything from generating electricity to cooking and space heating to an alternative transportation fuel. In 2020, total natural gas demand in California for residential, commercial, industrial, vehicle fuel, and electric power generation was 2,019 billion cubic feet per year (BCF/year), up from 2,108 BCF/year in 2016. Demand in all sectors except vehicle fuel has remained relatively flat but demand for vehicle fuel rose 33 percent between 2016 and 2021.⁸

Natural gas-fired generation has become the dominant source of electricity in California; it fuels about 43 percent of electricity consumption, followed by hydroelectric power. Because natural gas is a resource that provides load when the availability of hydroelectric power generation and/or other sources decrease, use varies greatly from year to year. The availability of hydroelectric resources, the

⁵ California Energy Commission (CEC). 2019. Electric Load-Serving Entities (LSEs) in California. Website: https://www.energy.ca.gov/almanac/electricity_data/utilities.html. Accessed June 24, 2022.

⁶ Pacific Gas and Electric Company (PG&E). 2020. Corporate Responsibility and Sustainability Report.

⁷ California Energy Commission (CEC). 2020. "Electricity Consumption by County." Website: <https://ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed June 24, 2022.

⁸ United States Energy Information Administration (EIA). 2022. Natural Gas Consumption by End Use. Website: https://www.eia.gov/dnav/ng/NG_CONS_SUM_DCU_SCA_A.htm. Accessed June 30, 2022.

emergence of renewable resources for electricity generation, and overall consumer demand are the variables that shape natural gas use in electric generation.⁹

Fresno County

The City of Fresno 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 Fresno County is used herein to also characterize the City's existing natural gas consumption. According to the CEC, Fresno County consumed approximately 352.2 million U.S. therms of natural gas in 2019, or approximately 35,220 billion BTU.¹⁰ Note that year 2019 was used over reporting year 2020 to present a pre-COVID-19 pandemic level of energy usage.

Project Site

The project site contains existing development such as residential, commercial, and agricultural uses, that currently use natural gas from existing utilities.

Fuel Use

State of California

The main category of fuel use in California is transportation fuel, especially refined petroleum products. California is the second largest consumer of refined petroleum products, after Texas, consuming approximately 524 million barrels of petroleum and accounting for approximately 7.9 percent of U.S. consumption in 2020. The transportation sector uses approximately 85 percent of the petroleum consumed in the State. Natural gas is the second largest transportation fuel used in California. California is the second largest consumer of natural gas after Texas, and the transportation sector's consumption of compressed natural gas vehicle fuel consumed 1 percent of California's total consumption.¹¹

Project Site

The project site contains existing development, such as residential, commercial, and agricultural uses, that currently use generate vehicle trips and subsequent fuel use.

⁹ California Energy Commission (CEC). 2022. Supply and Demand of Natural Gas in California. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california>. Accessed June 30, 2022.

¹⁰ California Energy Commission (CEC). 2020. Gas Consumption by County. Website: <https://ecdms.energy.ca.gov/gasbycounty.aspx>. Accessed June 24, 2022.

¹¹ United States Energy Information Administration (EIA). 2022. California State Energy Profile. Website: <https://www.eia.gov/state/print.php?sid=CA>. Accessed June 29, 2022.

3.6.3 - Regulatory Framework

Federal

Energy Independence and Security Act

The Energy Policy Act of 2005 created the Renewable Fuel Standard program. The Energy Independence and Security Act of 2007 expanded this program by:

- Expanding the Renewable Fuel Standard program to include diesel in addition to gasoline;
- Increasing the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;
- Establishing new categories of renewable fuel and setting separate volume requirements for each one; and
- Requiring the United States Environmental Protection Agency (EPA) to apply lifecycle greenhouse gas (GHG) performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

This expanded Renewable Fuel Standard program lays the foundation for achieving substantial reductions of GHG emissions from the use of renewable fuels, reducing the use of imported petroleum, and encouraging the development and expansion of the nation's renewable fuels sector.

Signed on December 19, 2007, the Energy Independence and Security Act (EISA) of 2007 aims to:

- Move the United States toward greater energy independence and security.
- Increase the production of clean renewable fuels.
- Protect consumers.
- Increase the efficiency of products, buildings, and vehicles.
- Promote research on and deploy GHG capture and storage options.
- Improve the energy performance of the federal government.
- Increase U.S. energy security, develop renewable fuel production, and improve vehicle fuel economy.

EISA reinforces the energy reduction goals for federal agencies put forth in Executive Order 13423, which strengthens federal environmental, energy, and transportation management. It also introduces more aggressive requirements. The three key provisions enacted are the Corporate Average Fuel Economy Standards, the Renewable Fuel Standard, and the appliance/lighting efficiency standards.

EPA is committed to developing, implementing, and revising both regulations and voluntary programs under the following subtitles in EISA, among others:

- Increased Corporate Average Fuel Economy Standards
- Federal Vehicle Fleets
- Renewable Fuel Standard
- Biofuels Infrastructure

- Carbon Capture and Sequestration¹²

EPA and National Highway Traffic Safety Administration Light-Duty Vehicle GHG Emission Standards and Corporate Average Fuel Economy Standards Final Rule

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, the President 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 United States Department of Transportation (USDOT) National Highway Traffic Safety Administration (NHTSA) 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 would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They required these vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO₂ level solely through fuel economy improvements. Together, these standards would cut CO₂ 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 NHTSA issued final rules on a second phase joint rulemaking, establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012.¹³ 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 fleet wide level of 163 grams/mile of CO₂ in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements.

The EPA and NHTSA 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 CO₂ 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). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10 percent reduction in fuel consumption and CO₂ emissions from the 2014 to 2018 model years.

The State of California has received a waiver from the EPA to have separate, stricter Corporate Average Fuel Economy Standards. Although global climate change did not become an international

¹² United States Environment Protection Agency (EPA). 2022. Summary of the Energy Independence and Security Act. Website: <https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act>. Accessed June 24, 2022.

¹³ 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.

concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the incidental reduction of GHG emissions. In order to manage the State's energy needs and promote energy efficiency, Assembly Bill (AB) 1575 created the CEC in 1975.

California AB 1493: Pavley Regulations and Fuel Efficiency Standards

California 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 U.S. District Court for the District of Columbia in 2011.¹⁴

The standards were phased in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards would result in an approximately 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards would result in about a 30 percent reduction.

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 will 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.¹⁵

California Code of Regulations Title 13: Motor Vehicles

California Code of Regulations, Title 13: Division 3, Chapter 10, Article 1, Section 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling¹⁶ seeks to reduce public exposure to diesel particulate matter (DPM) and other air contaminants by establishing idling restrictions, emission standards, and other requirements for heavy-duty diesel engines and alternative idle reduction technologies to limit the idling of diesel-fueled commercial motor vehicles. Any person that owns, operates, or causes to operate any diesel-fueled commercial motor vehicle must not allow a vehicle to idle for more than 5 consecutive minutes at any location or operate a diesel-fueled auxiliary power system for greater than 5 minutes at any location when within 100 feet of a restricted area.

¹⁴ California Air Resources Board (ARB). 2013. Clean Car Standards—Pavley, Assembly Bill 1493. Website: <https://ww2.arb.ca.gov/californias-greenhouse-gas-vehicle-emission-standards-under-assembly-bill-1493-2002-pavley>. Accessed June 24, 2022.

¹⁵ California Air Resources Board (ARB). 2011. Status of Scoping Plan Recommended Measures.

¹⁶ California Air Resources Board (ARB). 2004. Final Regulation Order, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

California Code of Regulations, Title 13: Division 3, Chapter 9, Article 4.8, Section 2449: General Requirements for In-Use Off-Road Diesel-Fueled Fleets.

This measure regulates oxides of nitrogen (NO_x), DPM, and other criteria pollutant emissions from in-use off-road diesel-fueled vehicles. This measure also requires each fleet to meet fleet average requirements or demonstrate that it has met Best Available Control Technology (BACT) requirements. Additionally, this measure requires medium and large fleets to have a written idling policy that is made available to operators of the vehicles informing them that idling is limited to 5 consecutive minutes or less.

California Senate Bill 1078: Renewable Electricity Standards

On September 12, 2002, Governor Gray Davis signed Senate Bill (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 LSEs 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.

California S 350: Clean Energy and Pollution Reduction Act

In 2015, the State 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 electric vehicle (EV) 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, the CEC, and local publicly owned utilities.
- Reorganize 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.¹⁷

California Code of Regulations Title 24

Part 6 (Energy Efficiency Standards for Residential and Nonresidential Buildings)

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

¹⁷ California Legislative Information (California LegInfo). 2015. Senate Bill 350 Clean Energy and Pollution Reduction Act of 2015. Website: https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350. Accessed June 24, 2022.

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 latest 2019 Building Energy Efficiency Standards went into effect on January 1, 2020, and the newly updated 2022 Building Energy Efficiency Standards will go into effect on January 1, 2023.¹⁸

Part 11 (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 2022 California Green Building Standards Code (CALGreen) that became effective January 1, 2023.¹⁹ Local jurisdictions are permitted to adopt more stringent requirements, as State law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction and demolition ordinances and defers to them as the ruling guidance provided they provide a minimum 50 percent diversion requirement. CALGreen also provides exemptions for areas not served by construction and demolition recycling infrastructure. California 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.

California Public Utilities Code

The California Public Utilities Commission (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 customers from fraud; and (3) promote a healthy California economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the CPUC.

Local

Fresno General Plan

The Fresno General Plan (General Plan) was adopted in 2014 and contains the following goals and policies related to energy:

Resource Conservation and Resiliency Element

Objective RC-2 Promote land uses that conserve resources.

Policy RC-2-a **Link Land Use to Transportation.** Promote mixed-use, higher density infill development in multi-modal corridors. Support land use patterns that make more efficient use of the transportation system and plan future transportation investments in areas of higher-intensity development. Discourage investment in infrastructure that would not meet these criteria.

¹⁸ California Energy Commission (CEC). 2022. 2022 Building Energy Efficiency Standards.

¹⁹ California Building Standards Commission (CBSC). 2016. Green Building Standards.

- Policy RC-5-f** **Toolkit.** Provide residents and project applicants with a “toolkit” of feasible measures that can be used to reduce GHG emissions, including educational materials on energy-efficient and “climate-friendly” products.
- Policy RC-6-d** **Recycled Water.** Prepare, Adopt, and implement a City of Fresno Recycled Water Master Plan.
- Objective RC-7** Promote water conservation through standards, incentives, and capital investments.
- Policy RC-7-a** **Water Conservation Program Target.** Maintain a comprehensive conservation program to help reduce per capita water usage in the City’s water service area to 243 gallons per capita per day (GPCD) by 2020 and 190 GPCD by 2035, by adopting conservation standards and implementing a program of incentives, design and operation standards, and user fees:
- Support programs that result in decreased water demand, such as landscaping standards that require drought-tolerant plants, rebates for water conserving devices and systems, turf replacement, xeriscape landscape for new homes, irrigation controllers, commercial/industrial/institutional water conserving programs, prioritized leak detection program, complete water system audit, landscape water audit and budget program, and retrofit upon resale ordinance.
 - Implement the US Bureau of Reclamation Best Management Practices for water consideration as necessary to maintain the City’s surface water entitlements.
 - Adopt and implement policies in the event that an artificial lake is proposed for development.
 - Work cooperatively toward effective uniform water conservation measures that would apply throughout the Plan Area.
 - Expand efforts to educate the public about water supply issues and water conservation techniques.
- Policy RC-7-b** **Water Pricing and Metering.** Develop a tiered water cost structure for both residential and commercial users that will properly price water based on its true cost; require all new development to be metered for water use; and charge all customers the true, full cost of their water supply, including costs of acquisition, initial treatment, conveyance, wastewater treatment, operations, maintenance, and remediation.
- Policy RC-7-c** **Best Practices for Conservation.** Require all City facilities and all new private development to follow US Bureau of Reclamation Best Management Practices for water conservation, as warranted and appropriate.
- Policy RC-7-d** **Update Standards for New Development.** Continue to refine water saving and conservation standards for new development.

- Policy RC-7-h Landscape Water Conservation Standards.** Refine landscape water conservation standards that will apply to new development installed landscapes, building on the State Model Water Efficient Landscape Ordinance and other State regulations:
- Evaluate and apply, as appropriate, augmented xeriscape, “water wise,” and “green gardening” practices to be implemented in public and private landscaping design and maintenance.
 - Facilitate implementation of the State’s Water Efficient Landscape Ordinance by developing alternative compliance measures that are easy to understand and observe.
- Objective RC-8** Reduce the consumption of nonrenewable energy resources by requiring and encouraging conservation measures and the use of alternative energy sources.
- Policy RC-8-a Existing Standards and Programs.** Continue existing beneficial energy conservation programs, including adhering to the California Energy Code in new construction and major renovations.
- Policy RC-8-b Energy Reduction Targets.** Strive to reduce per capita residential electricity use to 1,800 kWh per year and nonresidential electricity use to 2,700 kWh per year per capita by developing and implementing incentives, design and operation standards, promoting alternative energy sources, and cost-effective savings.
- Policy RC-8-c Energy Conservation in New Development.** Consider providing an incentive program for new buildings that exceed California Energy Code requirements by 15 percent.
- Policy RC-8-d Incentives.** Establish an incentive program for residential developers who commit to building all of their homes to ENERGY STAR performance guidelines.
- Policy RC-8-e Energy Use Disclosure.** Promote compliance with State law mandating disclosure of a building’s energy data and rating of the previous year to prospective buyers and lessees of the entire building or lenders financing the entire building.
- Policy RC-8-f City Heating and Cooling.** Reduce energy use at City facilities by updating heating and cooling equipment and installing “smart lighting” where feasible and economically viable.
- Policy RC-8-g Resolving Energy Fund.** Create a City Energy Fund which uses first year savings and rebates from completed City-owned energy efficiency projects to provide resources for additional energy projects. Dedicate this revolving fund to the sole use of energy efficiency projects that will pay back into the fund.
- Policy RC-8-h Solar Assistance.** Identify and publicize information about financial mechanisms for private solar installations and provide over-the-counter permitting for solar

installations meeting specified standards, which may include maximum size (in kV) of units that can be so approved.

Policy RC-8-i Renewable Target. Adopt and implement a program to increase the use of renewable energy to meet a given percentage of the City's peak electrical load within a given time frame.

Policy RC-8-j Alternative Fuel Network. Support the development of a network of integrated charging and alternate fuel station for both public and private vehicles, and if feasible, open up municipal stations to the public as part of network development.

Policy RC-8-k Energy Efficiency Education. Provide long-term and ongoing education of homeowners and businesses as to the value of energy efficiency and the need to upgrade existing structures on the regular basis as technology improves and structures age.

Fresno Southeast Development Area Specific Plan

The Fresno Southeast Development Area (SEDA) Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Specific Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to energy:

Housing Choice and Affordability

Objective HC-3 Link housing and transportation together to limit family expenditures on both housing and transportation. The multimodal transportation network connects housing and jobs within the Southeast Development Area and to other major regional centers, facilitating internal travel by non-automobile means. The Urban Form Chapter addresses the location, distribution, and standards for transportation infrastructure investment, combining transportation options with land use development to ultimately lower travel costs for SEDA residents and employees.

Policy HC-3.3 Smart Land Uses. Build smaller-lot single-family and multifamily housing types which use less energy and water than larger units.

Open Space, Schools and Public Facilities

Objective OS-2 Create and maintain an open space network that serves multiple purposes, including recreation, stormwater management, community farming, and environmental preservation.

Policy OS-2.5 Renewable Energy Generation. Support renewable energy technology systems in open spaces, where appropriate.

- Pursue arrangements with public agencies and private partners to accommodate renewable energy systems, such as solar arrays, in areas that can serve a joint use as passive open space.

Objective OS-6 Ensure that all park, trail, and recreational facilities make the most efficient use of energy, water, and other natural resources.

Policy OS-6.1 **Green Building.** As important civic structures, park buildings shall conform to green building standards for energy and water efficiency.

Policy OS-6.3 **Renewable Energy Systems.** Explore developing renewable energy systems to provide power to park facilities.

Objective OS-10 Civic facilities, such as libraries, community centers, senior centers, post offices, and other civic buildings, will be integrated into the urban fabric of centers and communities, and will be well-served by public transit, paths, and trails.

Policy OS-10.5 **On-Site Renewable Energy Generation.** Pursue opportunities to develop renewable energy systems for civic facilities.

Greenhouse Gas Reduction and Conservation

Policy RC-1.4 **Energy Conservation Strategies.** Although new residential development now must meet zero-net-energy requirements, there is still a need to conserve energy to reduce GHG emissions. Energy use in buildings is the second largest generator of GHG emissions after transportation. The following policies will help accomplish needed GHG reductions:

- a) Consider developing an incentive program in SEDA for new buildings that exceed the California Energy Code requirements by 15 percent.
- b) Encourage and reward compliance with voluntary energy conservation certification programs such as LEED®, EnergyStar, or Greenpoint Rating systems.
- c) Promote compliance with State law mandating disclosure of a building's energy data and rating of the previous year to prospective buyers and lessees of the entire building or lenders financing the entire building.
- d) Partner with PG&E or other organization to offer a home energy retrofit program to existing homeowners in the SEDA. Ensure that solar retrofits are made available to existing homeowners.

Policy RC-1.5 **Waste Diversion, Recycling, & Energy Recovery.** Establishing programs and actions that promote recycling and diversion of waste from landfills can reduce energy consumed in the transport and handling of the waste material and can reduce the greenhouse gases that are emitted during the decomposition of organic waste.

The State of California has adopted increasingly stringent mandates for the percentage of solid waste that can be disposed in landfills. In addition, certain

landfills are mandated to install methane capture systems to result in greenhouse gas reductions from these sources. The effects of methane are powerful—as it is 21 times more effective than carbon dioxide in retaining heat in the atmosphere. Methane can be flared, producing mainly carbon dioxide or used in combustion devices to generate heat or power that can be used for productive purposes displacing the use of fossil fuels. The following policies are recommended in the SEDA to reduce GHGs and conserve energy:

1. Maintain current targets for recycling and re-use of all types of waste material in the City and enhance waste and wastewater management practices to reduce natural resource consumption, including the following measures:
 - a) Continue to require recyclable material collection and storage areas in all residential development.
 - b) Establish recycling collection and storage area standards for commercial and industrial facilities to size the recycling areas according to the anticipated types and amounts of recyclable material generated.
 - c) Provide educational materials to residents on how and what to recycle and how to dispose of hazardous waste.
 - d) Provide recycling canisters and collection in public areas where trash cans are also provided.
 - e) Institute a program to evaluate major waste generators and identify recycling opportunities for their facilities and operations.
 - f) Continue to partner with the California Integrated Waste Management Board on waste diversion and recycling programs and the CalMax (California Materials Exchange) program.
 - g) Evaluate the feasibility of a residential, restaurant and institutional food waste segregation and recycling program, to reduce the amount of organic material sent to landfill and minimize the emissions generated by decomposing organic material.
 - h) Evaluate the feasibility of “carbon footprinting” for the City’s wastewater treatment facilities, biomass and composting operations, solid waste collection and recycling programs.
 - i) Expand yard waste collection to divert compostable waste from landfills.
 - j) Study the feasibility and cost-benefit analysis of a municipal composting program to collect and compost food and yard waste, including institutional food and yard waste, using the resulting compost matter for City park and median maintenance.
2. Create a strategic and operations plan for fulfilling the City Council resolution committing the City of Fresno to a Zero Waste goal.
3. Continue to pursue opportunities to reduce air pollution by using methane gas from the old City landfill and the City’s wastewater treatment process.

Policy RC-1.6 **Municipal Facilities.** SEDA will include a range of municipal facilities from streetlights to parks and open spaces to community centers and police and fire

facilities. It is important to include greenhouse gas reductions and energy conservation at City facilities, over which the City has direct control and can allocate resources for this purpose. In addition, implementing these measures at City facilities also establishes the City as a leader in GHG reduction and conservation, which is important as it implements these measures on a citywide basis. The following are potential citywide actions that can be initiated within the SEDA as opportunity allows:

- a) Improve energy efficiency in City operations.
- b) Exceed Title 24 energy efficiency standards for new City buildings.
- c) Install renewable energy systems on City facilities.
- d) Implement City operated transportation demand management for City employees.
- e) Purchase green vehicles for City fleets.
- f) Enhance reduction, reuse and recycling efforts at City facilities.
- g) Implement water efficient landscaping in City parks and facilities.
- h) Establish a green purchasing program.

Policy RC-1.7

Urban Forestry Program. Encouraging the integration and protection of new and existing mature trees within our communities can lead to significant reductions in the urban heat island effect and energy required for cooling. As another significant benefit, trees also store harmful carbon as they grow, in a process known as sequestration. As these trees continue to grow, mature and sequester carbon, it is also important for urban forestry projects to consider potential tree emissions that result from the maintenance and ultimate disposition of trees to ensure a net decrease in greenhouse gas emissions occurs.

Maintaining trees, vegetation and plants throughout City parks is important to the success and longevity of these publicly owned spaces. In addition, these areas provide opportunities for new tree planting and replacement of tree species that possess a low potential to store carbon, with tree species that possess higher carbon storage potential. To better understand how to achieve these opportunities, there are many tools that communities can utilize. The Climate Action Reserve, Urban Forest Project Reporting Protocol (CAR 2019) provides criteria for generating greenhouse gas emission offsets with tree planting along with procedures for project monitoring.

Development of the SEDA will present many opportunities for the strategic planting of trees with high carbon storage potential, as noted below:

- a) Develop a tree palette for the SEDA that reinforces its sense of place, reflects native species, and includes tree species with high carbon storage potential.
- b) Meet parks shading targets noted in the Parks Master Plan.
- c) Plant shade trees to delineate corridors and the boundaries of urban areas, and to provide tree canopy for bike lanes, sidewalks, parking lots, and trails.

- Objective RC-2** Integrate water supply, treatment and delivery, and flood control and stormwater planning in the Southeast Development Area.
- Policy RC-2.1** **Energy Planning.** Support cooperative, multi-agency water and energy resource planning involving the City of Fresno and other local jurisdictions, water and flood control agencies, the San Joaquin Valley Clean Energy Organization and Pacific Gas and Electric Company.
- Objective RC-6** Develop sufficient wet utility infrastructure to meet the demand created by new development within the Southeast Development Area, applying cost-effective and low-impact strategies to the extent possible.
- Policy RC-6.4** Shared Resources and Infrastructure. Develop methods and systems to share resources, infrastructure, and to capture the highest possible value for all public agencies. Resource-sharing strategies and plans shall be included in the SEDA Infrastructure Financing Plan.
- **Energy Generation:** Evaluate the potential to generate energy and heat from wastewater treatment facilities.
 - **Biodigestion:** Study opportunities to treat wastewater sludge and organic waste to capture methane, alcohols, fertilizers, and other fuels to transform into renewable energies.
 - **Wastewater Treatment Plants:** Require treatment facilities to separate wastewater solids for energy generation and water for irrigation in the SEDA.
 - **Safety and Access Standards for Facilities:** Develop facilities design and management standards that address public safety and access issues.

Economic Opportunity

- Objective EO-2** Target economic growth in industries in which Fresno has a competitive advantage.
- Policy EO-2.2** **Local and Regional Economic Opportunity chapter.** Coordinate with other local and regional economic development efforts to build on opportunities presented by new development in the SEDA. This includes plans and programs within the City of Fresno Economic Development Department, as well as any related efforts.
- Objective EO-3** Support growth in clean energy and agricultural technologies, tapping into broad demand from the local to national level and beyond. Citywide strategies should be developed to align with and build upon the goals and policies of the Southeast Development Area Specific Plan.
- Policy EO-3.1** **Collaboration with the San Joaquin Valley Clean Energy Organization (SJVCEO).** Work with the SJVCEO to attract projects and investments to the SEDA, promoting it as a key location in which to implement emerging clean energy. Local renewable energy projects can capitalize on Fresno’s abundant solar and biomass resources.

Policy EO-3.2 Coordination with California State University, Fresno. Build on partnerships with California State University, Fresno to develop programs and projects to attract funding for research and development in the following areas:

- A. Agricultural technology
- B. Clean energy technology
- C. Green building technology
- D. Value-added manufacturing technology
- E. Water and wastewater technology
- F. City and Regional Planning

Objective EO-5 Expand the economic base and fiscal sustainability of the City by supporting high sales, property values, and employment intensity per acre for economic development in key locations throughout the Southeast Development Area.

Policy EO-5.4 Employment in Open Space Network. Develop the open space network to support employment opportunities.

- Support small-scale farms in rural cluster areas.
- Support agricultural research in open space areas.
- Support the development of clean energy systems within the open space network (e.g., solar farms in parks, flood basins).

Fresno Municipal Code

Fresno Municipal Code, Chapter 11, Article 1, SEC. 11-108 (California Energy Code) states that the California Energy Code, 2019 Edition, is adopted by the City of Fresno and incorporated into the Code and shall be referred to as the Fresno Energy Code.

SEC. 11-109 (California Green Building Standards) states that the California Green Building Standards Code, 2022 Edition, which may be referred to in the Code as CALGreen, is adopted by the City of Fresno and incorporated into the Code and shall be referred to as the Fresno CALGreen Code.

Therefore, future developments within the Plan Area would be required to comply with the Fresno Energy Code and Fresno CALGreen Code.

3.6.4 - Methodology

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 Appendix E of this Recirculated Draft PEIR analysis.

3.6.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist as thresholds to determine whether impacts related to energy

are significant environmental effects. The project would have a significant impact on the environment if it would:

- 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.

3.6.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate. This Recirculated Draft PEIR contemplates implementation of the Fresno SEDA Specific Plan; future discretionary projects facilitated by the proposed project will be evaluated for project-specific energy impacts at the time they are proposed.

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.
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Implementation of the proposed project would utilize energy resources during construction and operational activities. Energy resources that would be potentially impacted include electricity, natural gas, and petroleum-based fuel supplies and distribution systems. A significant impact would occur if the proposed project would result in the inefficient, wasteful, or unnecessary use of energy.

Construction Energy Usage

During construction, the proposed project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment and the use of electricity for temporary buildings, lighting, and other sources. It is not anticipated that natural gas would be consumed as part of project construction. Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site clearing, grading, paving, and building construction. The types of equipment could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, frontend loaders, forklifts, and cranes.

Based on CalEEMod estimations within the modeling output files used to estimate GHG emissions associated with future development projects, under the proposed project construction-related vehicle trips would result in approximately 5,576.3 million Vehicle Miles Traveled (VMT) and consume an estimated 294,072,433 gallons of gasoline and diesel combined during future development projects' construction phases (Appendix B).²⁰ Additionally, on-site construction

²⁰ Construction-related vehicle fuel was calculated by dividing the Vehicle Miles Traveled (VMT) for each phase of construction by the corresponding fuel efficiencies. The EMFAC2017 web database was used to calculate fuel efficiencies based on worker, vendor, and hauling fleet mixes, and VMT was calculated by multiplying trip length by number of trips for each phase of construction. These calculations and assumptions can be found in Appendix B.

equipment would consume an estimated 861,427 gallons of diesel fuel (Appendix B).²¹ Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations, Title 13, Sections 2449 and 2485, limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. Additionally, given the cost of fuel, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. Because of the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy.

Furthermore, as required by Fresno Municipal Code, Chapter 11, Article 1, SEC. 11-108 and SEC. 11-109, new development would be subject to energy conservation requirements in the California Energy Code (California Code of Regulations [CCR] Title 24, Part 6, of the, California's Energy Efficiency Standards for Residential and Nonresidential Buildings) and CALGreen (CCR Title 24, Part 11). Based on standards for new construction established by the State and adherence to the development standards in the Municipal Code, activities associated with implementation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy. Pursuant to the Municipal Code, the City would review development proposals prior to the approval of development plans to ensure that sufficient energy resources and facilities are available and that the development complies with energy conservation and efficiency standards of Title 24 and the Municipal Code. Additionally, implementation of the proposed project's policies would help to minimize the effects of growth and development on energy resources. Therefore, implementation of the proposed project will have a less than significant impact under this criterion.

Operation Energy Usage

Implementation of the proposed project may result in the development of approximately 45,000 homes, as well as the development of office centers, flexible research and development districts, and institutional uses within the nearly 9,000-acre Plan Area by the year 2050. Operation of future developments envisioned as a part of the proposed project would consume natural gas and electricity for building heating and power, lighting, and water conveyance, among other operational requirements. The electrical consumption and natural gas usage associated with the potential development have been calculated in the CalEEMod model, which estimates that the potential development would consume 500,083,800 kWh of electricity per year and 1,200,642,400 kilo-British Thermal Units (kBtu) of natural gas per year. All CalEEMod modeling output files and energy consumption estimates are contained in Appendix B.

Future development projects would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the California Title 24 energy efficiency

²¹ On-site construction fuel consumption is the sum of diesel fuel usage of each type of equipment during each phase of construction. Diesel fuel usage was calculated for each type of construction equipment by multiplying the number of pieces of equipment by usage hours by horsepower by load factor by number of days and by an estimated fuel usage value of 0.05 gallons of diesel fuel per horsepower-hour. These calculations and assumptions can be found in Appendix B.

standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of lighting that can be used in a building based on its square footage. Title 24 additionally requires new low-rise residential developments to include rooftop solar systems meeting a minimum system capacity consistent with calculations contained in Title 24, Part 6, Subchapter 8. Title 24 standards, widely regarded as the most advanced energy efficiency standards, would help to reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation. Additionally, implementation of the General Plan and the proposed project's policies would help to minimize the effects of growth and development on energy resources. The General Plan, and the guiding principles of the Fresno SEDA Specific Plan, promote higher density housing development in proximity to mixed-use areas and transit options. The plans and policies in the General Plan encourage alternative transit options through the creation of bicycle and pedestrian paths to improve the bikeability and walkability in the Plan Area.

Additionally, the General Plan includes numerous policies and implementation programs focused on improving the sustainability of the City, including reducing the consumption of non-renewable energy resources by requiring and encouraging conservation measures and the use of alternative energy sources (Policies RC-8-a through RC-8-k) and incentives for affordable housing providers, agencies, and non-profit and market rate developers to use Leadership in Energy and Environmental Design (LEED™) and CALGreen Tier 1 or Tier 2 standards or third party equivalents (Policy HC-3-d). Moreover, the energy efficiency of buildings is expected to continue to increase and improve throughout the life of the project as new energy efficiency standards are established. Similarly, the proposed project includes Policy RC-1.4 which includes Energy Conservation Strategies and incentives for residential projects.

Plans submitted for building permits of development projects in the project area would be required to include verification demonstrating compliance with the Building and Energy Efficiency Standards for Residential and Non-Residential Buildings in effect at the time building permits are issued. These standards are updated every 3 years, with the latest update (2022) having gone into effect on January 1, 2023. The proposed project would also be required to adhere to the provisions of CALGreen, which established planning and design standards for sustainable site development, energy efficiency (beyond the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. Additionally, because developments that would be considered under the proposed project have not been designed or proposed at this time, potential improvements to the current energy and natural gas facilities would be identified at the time such projects are considered. Therefore, with adherence to Title 24 regulations and the objectives and policies included in the approved General Plan and the proposed Specific Plan, 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.

Furthermore, compliance with recommended mitigation for potential Air Quality and GHG impacts included as part of this Recirculated Draft PEIR would reduce energy usage from the proposed project by requiring energy efficiency measures that go beyond the Title 24 and CALGreen standards,

including the use of energy-efficient building design and materials and EV infrastructure. These mitigation measures will further reduce the potential energy impacts of the proposed project.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

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.**

Impact Analysis

A significant impact would occur if the proposed project would conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Potential new development that may occur from implementation of the proposed project would be required to comply with the CALGreen Code (CCR Title 24, Part 11) and the California Energy Code (CCR Title 24, Part 6), which includes provisions related to insulation and design aimed at minimizing energy consumption. Future development projects envisioned as a part of the proposed project would also be required to comply with objectives and policies included in the General Plan that are aimed at reducing energy consumption.

Construction

As discussed under Impact ENER-1, the proposed project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment and through the use of electricity for temporary buildings, lighting, and other sources. California Code of Regulations Title 13, Sections 2449 and 2485, limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. The proposed project would comply with these regulations. There are no policies at the local level applicable to energy conservation specific to the construction phase; thus, it is anticipated that construction of the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, construction-related energy efficiency and renewable energy standards consistency impacts would be less than significant.

Operation

The General Plan aims to promote mixed-use development and encourage alternative modes of transportation to reduce vehicle trip lengths and reliance on the automobile, which in turn would reduce the transportation energy demand in the Plan Area. The General Plan also encourages development of housing near employment and transportation, which supports reductions in per capita VMT. Implementation of the policies in the General Plan, as well as the guiding principles and policies included in the proposed Fresno SEDA Specific Plan, would also promote land use patterns

that would improve walking and bicycling facilities to be more prominent, comfortable, and safe throughout the City. Compliance with the policies included in the General Plan, including Policy RC-8-j, would support the development of a network of integrated charging and alternate fuel station for both public and private vehicles that would also serve to reduce the overall transportation energy demand. The proposed Fresno SEDA Specific Plan includes the policies to reduce or minimize the effects of the additional demand and consumption of energy resources associated with the planned growth and ensure consistency with State and local plans. Implementation of Policy EO-3.1 encourages collaboration with the San Joaquin Valley Clean Energy Organization (SJVCEO) to attract projects and investments to Fresno and specifically the SEDA. Local renewable energy projects can capitalize on Fresno's abundant solar and biomass resources and would help reduce the effects of the additional demand and consumption of energy resources.

As discussed in Section 3.17, Transportation, average VMT per capita under existing conditions for the City of Fresno is 13.1 miles compared to 16.2 miles for the County of Fresno (approximately 19 percent less than the county average). Through the implementation of the General Plan, in 2035, the City VMT per capita (16.5 miles) is forecast to be 17 percent less than the County VMT per capita (19.9 miles). Corresponding numbers for VMT per employee indicate that the City average is forecast to be 13 percent lower than the 2035 County average. This is a greater reduction in VMT than forecast by the Fresno Council of Governments (Fresno COG) in the Regional Transportation Plan (RTP), a 12 percent reduction in VMT for the RTP project. The buildout of the proposed project would serve to further reduce VMT per capita in the region by locating high-density housing near service amenities and jobs.

California's RPS requires that 33 percent of electricity retail sales be served by renewable energy sources by 2020. The proposed project would be served with electricity provided by PG&E. A total of 33 percent of PG&E's delivered electricity comes from renewable sources, including solar, wind, geothermal, small hydroelectric and various forms of bioenergy. PG&E reached California's 2020 renewable energy goal in 2017 and is positioned to meet the State's 60 percent by 2030 renewable energy mandate set forth in SB 100.

The State's Title 24 energy efficiency standards establishes mandatory measures for residential buildings, including material conservation and resource efficiency. Development consistent with the proposed project would be required to comply with these mandatory measures. The proposed project would also comply with the California Building Standards Code (CBC) requiring proposed low-rise residential buildings to include rooftop solar systems. In addition, per the CBC, the proposed buildings would be required to provide wiring that would allow installation of EV charging equipment in any private garages or carports. Mandatory compliance with the applicable provisions of CALGreen would ensure that development consistent with the proposed project uses energy efficiently.

Compliance with the above measures would ensure that development consistent with the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, operational energy efficiency and renewable energy standards consistency impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

3.6.7 - Cumulative Impacts

The geographic scope of the cumulative impact analysis for energy use is the Plan Area and portions of the City of Fresno, City of Clovis, and unincorporated Fresno County adjacent to the Plan Area. This analysis evaluates whether impacts of the Specific Plan, together with impacts of cumulative development, would result in a cumulatively significant impact with respect to energy use. This analysis then considers whether incremental contribution of the impacts associated with implementation of the Specific Plan would be significant. Both conditions must apply for cumulative effects to rise to the level of significance.

Construction Energy Demand

Past, present, and future development projects would contribute to energy impacts. All cumulative projects would be required to comply with the Municipal Code, City ordinances and County policies that address energy conservation and energy efficiency during construction, such as complying with the latest California Energy Code. Further, since PG&E is the official electricity provider for the County, cumulative projects would be eligible for PG&E's clean energy programs and incentives. Additional citywide programs, such as those required by the General Plan, would combine to reduce the energy demand, water use, amount of materials and wood use, and carbon dioxide emissions of buildings. Accordingly, potential cumulative impacts would be less than significant.

Moreover, the Specific Plan would not have a significant incremental contribution to the less than significant cumulative impacts. Based on the preceding analysis, implementation of the General Plan and the proposed project's policies would help to minimize the effects of growth and development on energy resources. The construction activity associated with the proposed project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources. Construction activities associated with the proposed project would not be more energy intensive than other similar construction operations throughout the region, and the proposed project would be subject to applicable regulations designed to reduce energy consumption. Accordingly, the proposed project's contribution to less than significant cumulative impacts due to construction-related energy consumption would be less than significant and would not be cumulatively considerable.

Operational Energy Demand

Mandatory compliance with the applicable provisions of CALGreen would ensure that the proposed project and other past, present, and future projects would use energy efficiently. Additionally, all cumulative projects would be required to comply with City ordinances and County policies that address energy conservation and energy efficiency. Accordingly, potential cumulative impacts would be less than significant.

Moreover, the proposed project would not have a significant incremental contribution to cumulative impacts. Energy consumed by the proposed project is calculated to be comparable to, or less than, energy consumed by other individual residential or commercial uses of similar scale and intensity currently constructed and operating in California. On this basis, the proposed project would not result in the inefficient, wasteful, or unnecessary consumption of energy. The proposed project would not result in additional energy facilities or energy delivery systems outside of connection to the existing utilities located in the adjacent roadways, and any potential additional energy facilities would be analyzed as a separate project.

As indicated under the analysis for Impact ENER-2, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. As such, the proposed project has no cumulatively considerable impacts due to a conflict with or obstruction of such plans.

Level of Cumulative Significance Before Mitigation

Less than significant impact.

Cumulative Mitigation Measures

None required.

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3.7 - Geology, Soils, and Seismicity

3.7.1 - Introduction

This section describes existing conditions related to geology and soils in the region and project area summarizes the relevant regulatory framework. This section also evaluates the possible significant impacts related to geology and soils that could result from implementation of the project and provides mitigation measures to reduce these impacts to a less than significant level. Information included in this section is based on, in part, the regional geologic reports and maps from the United States Geological Survey (USGS), the California Geological Survey (CGS), the Natural Resources Conservation Service (NRCS), and other public sources, as well as the Geological Hazards Investigation prepared by Krazan and Associates, Inc., on June 15, 2012, for the Fresno General Plan.

As further discussed in Chapter 1, Introduction, eight comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to geology and soils, including:

- Recommends that all future development under the proposed project collect soil samples for lead analysis prior to performing any intrusive activities.
- Requests that the Draft PEIR require any future development under the proposed project that requires the importation of soil to backfill any excavated areas to conduct the proper sampling to ensure that the imported soil is free of contamination.
- Identifies locations within the Plan Area that are within Special Flood Hazard Areas, which would be subject to Fresno County Ordinance Code Title 15, Chapter 15.48 as well as Federal Emergency Management Agency (FEMA) flood elevation requirements as applicable.
- States that any grading will require either an engineered grading and drainage plan, road improvement plan, permit or voucher and must comply with the City of Fresno standards/requirements.
- Requests that all engineered grading and drainage plans, road improvement plans, permits, and vouchers also be forwarded to the City of Fresno.
- Requests that the Draft PEIR accurately capture and analyze baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the Planning Area.
- Requests that the Draft PEIR identify and adopt all feasible and enforceable mitigation measures that avoid and reduce negative impacts.
- Requests that the Draft PEIR analyze and create mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.7.2 - Environmental Setting

Geologic Setting

Regional Setting

The Plan Area is in the San Joaquin Valley portion of the Great Valley Geomorphic Province of California, which is about 450 miles long. The San Joaquin Valley is bordered to the north by the Sacramento Valley, which together comprise the province. The San Joaquin Valley is surrounded by the Sierra Nevada to the east, the Coast Ranges to the west, and the Tehachapi Mountains to the south.¹ The Fresno Metropolitan area is set on gently southwest-sloping alluvial fans and plains formed by the San Joaquin and Kings rivers. The San Joaquin River and the Kings River are the principal rivers in the area, with the alluvial fans formed by these rivers serving as the predominant geomorphic features in the area. The City and Sphere of Influence (SOI) is generally characterized by low alluvial fans and plains, which constitute a belt of coalescing alluvial fans of low relief between the dissected uplands, adjacent to the Sierra Nevada and the valley trough.

Faulting

No active faults are mapped within the City of Fresno (City), and there are no Alquist-Priolo Earthquake Fault Zones in the City.² Active faults are those showing evidence of surface displacement within the last 11,000 years.³ The nearest fault to the Plan Area mapped by the CGS is the Clovis Fault, located about 3.8 miles to the northeast.⁴ The Clovis Fault is mapped as pre-Quaternary in age—that is, older than 1.6 million years, and is not considered an active fault.⁵ The nearest active faults to the Plan Area mapped by the CGS are the Nunez Fault about 48 miles to the southwest; the San Andreas Fault about 61 miles to the southwest; and the Ortigalita Fault Zone about 54 miles to the west. The Sierra Nevada Fault Zone is about 90 miles east of the Plan Area in the eastern slopes of the Sierra Nevada, and the Owens Valley Fault Zone is about 90 miles east of the Plan Area in the Owens Valley.

Existing Soils

Subsurface Soils in the Fresno Region

Based on the Geologic Hazards Investigation prepared for the Fresno General Plan, the uppermost 6 to 12 inches of soils in the Fresno region are very loose silty sand, silty sand with trace clay, sandy silt, clayey sand, or clayey gravel. These soils are disturbed, have low strength characteristics, and are highly compressible when saturated.

Between approximately 2 to 4 feet below ground surface (BGS), soils are generally loose/soft to very dense/hard clays, silts, sands, and gravels. These soils are typically moderately strong and slightly to moderately compressible.

¹ California Geological Survey (CGS). 2002. Note 36: California Geomorphic Provinces. Website: <https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf>. Accessed May 11, 2022.

² City of Fresno. 2014. Fresno General Plan, Chapter 9 Noise and Safety, Seismic And Geologic Hazards, .

³ California Geological Survey. 2017. Alquist-Priolo Earthquake Fault Zoning Act. Website: <https://www.conservation.ca.gov/cgs/alquist-priolo>. Accessed May 11, 2022.

⁴ California Department of Conservation. 2015. Fault Activity Map of California, California Geological Survey. Website: <https://maps.conservation.ca.gov/cgs/fam/>. Accessed May 12, 2022.

⁵ Ibid.

Below 3 to 5 feet BGS, soils generally consist of clays, silts, sands, and gravels. These soils are typically moderately strong and slightly compressible.⁶

Geological Hazards

The following description of geologic hazards is based partly on the Geological Hazards Investigation prepared for the Fresno General Plan by Krazan and Associates in 2012. The information presented here is a region-wide summary only and is not indicative of conditions on any development site. Site-specific geotechnical investigations would be required for each development project considered for approval under the proposed project.

Strong Ground Shaking

The peak ground acceleration with a 2 percent probability of exceedance in 50 years—that is, an average return period of 2,475 years—ranges from approximately 0.282g along State Route (SR) 180 to 0.276g on the northeast site boundary to 0.321g at the southeast corner of the site to 0.328g at the northwest corner of the site; g is the acceleration of gravity.⁷

Ground acceleration of 0.321g correlates with Intensity VII on the Modified Mercalli Intensity (MMI) Scale, a subjective scale of how earthquakes are felt by people and the effects of earthquakes on buildings.⁸ The MMI Scale is a 12-point scale where Intensity I earthquakes are generally not felt by people and Intensity XII earthquakes result in total damage with objects thrown into the air. In an Intensity VII earthquake, some chimneys are broken, and damage is negligible in buildings of good design and construction, is slight to moderate in well-built ordinary structures, and is considerable in poorly built or badly designed structures.⁹

The Fresno region has historically been subject to low to moderate ground shaking. Two of the historic earthquakes that caused ground shaking in the region, the Owens Valley Earthquake of 1872 and the Coalinga Earthquake of 1983, each generated ground shaking of Intensity VII in the region.¹⁰

The Geologic Hazards Investigation prepared for the Fresno General Plan includes estimated ranges of seismic parameters pursuant to the California Building Standards Code (CBC); seismic parameters must be calculated for each development project.¹¹

⁶ Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

⁷ California Geological Survey (CGS). 2008. Ground Motion Interpolator. Website: <https://www.conservation.ca.gov/cgs/ground-motion-interpolator>. Accessed May 12, 2022.

⁸ Wald, D.J., Vincent, Q., and Heaton, T.H., et al. 1999. Relationships between Peak Ground Acceleration, Peak Ground Velocity, and Modified Mercalli Intensity in California. August 1. Journal of Earthquake Spectra. Website: <https://doi.org/10.1193/1.1586058>. Accessed May 12, 2022.

⁹ Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

¹⁰ Ibid.

¹¹ Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

Liquefaction

Liquefaction refers to loose, saturated sand or silt deposits that behave as a liquid and lose their load-supporting capability when strongly shaken. Loose granular soils and silts that are saturated by relatively shallow groundwater are susceptible to liquefaction.

Soils in the Fresno region range from gravel to sand to silt to clay. Shallow soils—especially within 1 foot of the ground surface—are highly compressible; deeper soils—over 3 to 5 feet BGS—are typically moderately strong and slightly compressible.¹²

Liquefaction potential in the City of Fresno is considered low to moderate.¹³ No liquefaction has been observed in Fresno from any historic earthquake.¹⁴

Seismic Ground Settlement

Ground shaking can cause unconsolidated sediments to settle. Because of the nature of the soils underlying the City, and the history of low to moderate ground shaking, seismic settlement is not considered a significant hazard in the region.¹⁵

Lateral Spreading

Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. Lateral spreading is not considered a substantial hazard in the region for the same reasons given for seismic ground settlement.¹⁶

Landslides

There is no risk of large landslides in the Fresno area due to its relatively flat topography. However, there is potential for small landslides along the steep banks of rivers, creeks, or drainage basins such as the San Joaquin River Bluff and the many unlined basins and canals that trend throughout the City. Because of the generally flat-lying nature of the City, problems from landslides are not anticipated to affect the majority of the City provided developments in the vicinity of the San Joaquin River Bluff, basins, and canals are constructed properly with an appropriate setback from the slope edge.¹⁷

The San Joaquin River is located in the northwestern part of the City. The project site is located in the southwestern part of the City and is not located near the San Joaquin River. The project site is

¹² Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

¹³ Ibid.

¹⁴ County of Fresno. 2018. Multi-Hazard Mitigation Plan. Website: <https://www.co.fresno.ca.us/home/showpublisheddocument/35154>. Accessed May 13, 2022.

¹⁵ Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

¹⁶ Ibid.

¹⁷ Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

relatively flat and does not contain steep slopes. Any development near canals or drainage basins would be required to implement appropriate setbacks.

Erosion

Erosion is a natural process involving the movement of soil from place to place. The main natural agents of erosion in the region are wind and flowing water. Erosion can be accelerated dramatically by ground-disturbing activities if effective erosion control measures are not used. Soil can be carried off construction sites or bare land by wind and water and tracked off construction sites by vehicles. Sediments can increase the turbidity (cloudiness) of water, clog fish gills, reduce spawning habitat, lower survival rates of young aquatic organisms, smother bottom-dwelling organisms, and suppress aquatic vegetation growth.

The 2018 Fresno County Multi-Hazard Mitigation Plan identifies two types of areas with moderate to high erosion potential: (1) certain soil types in the Sierra Nevada and foothills (both Sierra Nevada and Coast Ranges) on slopes generally over 30 percent, and (2) certain soil types in the western San Joaquin Valley and the Coast Ranges, both in western Fresno County. The Fresno County Multi-Hazard Mitigation Plan's map of erosion hazards indicates that erosion hazard areas exist in east of Friant Kern Canal in the hills east of the City. The Plan Area is not mapped in an erosion hazard area.¹⁸

Construction projects 1 acre or larger in area are required to employ construction Best Management Practices (BMPs)—including erosion control BMPs—to minimize pollution of stormwater by construction activity, including pollution with sediment.

Ground Subsidence

The major causes of ground subsidence are the excessive withdrawal of groundwater and the withdrawal of petroleum. The Fresno region is not known to be subject to subsidence hazards. Substantial subsidence has occurred elsewhere in the San Joaquin Valley: up to 28 feet in western Fresno County in the western edge of the San Joaquin Valley; more than 12 feet in southwestern Tulare County; and more than 8 feet in Kern County south of Bakersfield.¹⁹ Areas of subsidence in Fresno County mapped in the Multi-Hazard Mitigation Plan are in western Fresno County more than 15 miles west and southwest from the Plan Area.²⁰

¹⁸ County of Fresno. 2018. Multi-Hazard Mitigation Plan. Website: <https://www.co.fresno.ca.us/home/showpublisheddocument/35154>. Accessed May 13, 2022.

¹⁹ Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

²⁰ Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

Collapsible Soils

Collapsible soils shrink upon being wetted and/or being subject to a load. Shallow soils on-site—to depths of at least 3 to 5 feet BGS—are expected to be compressible to varying degrees, with compressibility generally increasing nearer the surface.²¹

Expansive Soils

Expansive soils contain substantial amounts of clay that swells when wetted and shrinks when dried; the swelling or shrinking can shift, crack, or break structures built on such soils. Soils underlying the Fresno region consist partly of clays that are considered slightly to moderately expansive.²² The Plan Area is not mapped as having moderately high to high expansion potential.²³

Seismicity

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 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. Liquefaction occurs when an earthquake causes ground shaking that results in saturated soil to lose shear strength, deform, and act like a liquid. When liquefaction occurs, it can result in ground failure that can result in damage to roads, pipelines, and buildings.

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. The project vicinity is seismically active with known faults; however, the project area does not contain active faults that would cause geologic uplifting. 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.

²¹ Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

²² Ibid.

²³ County of Fresno. 2018. Multi-Hazard Mitigation Plan. Website: <https://www.co.fresno.ca.us/home/showpublisheddocument/35154>. Accessed May 13, 2022.

However, because the Plan Area is relatively flat and does not contain steep slopes, it is unlikely that significant slope disturbance would occur.

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 BMPs that would be used to control, prevent, remove, or reduce stormwater pollution from the project site, including sediment from erosion.

State Regulations

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. With the exception of 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.”

California Building Standards Code

The State of California provides minimum standards for building design through the CBC (California Code of Regulations [CCR], Title 24). Where no other building codes apply, Chapter 29 regulates excavation, foundations, and retaining walls. The 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 is updated every 3 years. The 2022 CBC (CCR Title 24) became effective on January 1, 2023. The 2022 CBC has been adopted by the City of Fresno.

Local Regulations

City of Fresno Building Code

The City of Fresno has incorporated and adopted the 2022 CBC with the City's amendments as Municipal Code Section 11- 102, referred to as the Fresno Building Code.

A preliminary soils report is required under Municipal Code Section 12-1022 for every subdivision for which a final map is required. Grading and erosion control requirements are set forth in Section 12-1023.

Fresno General Plan

The Fresno General Plan is the City's primary policy planning document. Through its 12 elements, the General Plan provides the framework for the management and utilization of the City's physical, economic, and human resources. Each element contains goals, policies, and implementation measures that guide development within the City.

The Fresno General Plan includes the following objectives and policies that pertain to geology and soils:

Noise and Safety

- Objective NS-2** Minimize risks of property damage and personal injury posed by geologic and seismic risks.
- Policy NS-2-a** **Seismic Protection.** Ensure seismic protection is incorporated into new and existing construction, consistent with the Fresno Municipal Code.
- Policy NS-2-b** **Soil Analysis Requirement.** Identify areas with potential geologic and/or soils hazards, and require development in these areas to conduct a soil analysis and mitigation plan by a registered civil engineer (or engineering geologist specializing in soil geology) prior to allowing on-site drainage or disposal for wastewater, stormwater runoff, or swimming pool/spa water.
- Policy NS-2-c** **Landfill Areas.** Require proposed land uses on or near landfill areas to be designed and maintained to comply with California Code of Regulations, Title 27, Section 21190, Post Closure Land Use.
- Policy NS-2-d** **Bluff Preservation Overlay Zone.** Per the requirements of the Bluff Preservation Overlay Zone District and Policy POSS-7-f (Chapter 5, Parks and Open Space), the following standards shall be applicable for property located within the Bluff Preservation zone:

- Require proposed development within 300 feet of the toe of the San Joaquin River bluffs to undertake an engineering soils investigation and evaluation report that demonstrates that the site is sufficiently stable to support the proposed development, or provide mitigations to provide sufficient stability.
- Establish a minimum setback of 30 feet from the San Joaquin River Bluff edge for all buildings, structures, decks, pools and spas (which may be above or below grade), fencing, lighting, steps, etc.
- An applicant may request to reduce the minimum setback to 20 feet from the bluff edge if it can be demonstrated, to the satisfaction of the City's Building Official and the Planning Director, that the proposed building, structure, deck, pool and/or spas (which may be above or below grade), fencing, steps, etc., will meet the objectives of the Bluff Preservation Overlay Ordinance. In no case shall the setback be reduced to less than 20 feet.

Public Utilities and Services Element

Objective PU-5 Preserve groundwater quality and ensure that the health and safety of the entire Fresno community is not impaired by use of private, on-site disposal systems.

Policy PU-5-a **Mandatory Septic Conversion.** Continue to evaluate and pursue where determined appropriate the mandatory abatement of existing private wastewater disposal (septic) systems and mandatory connection to the public sewage collection and disposal system.

Policy PU-5-b **Non-Regional Treatment.** Discourage, and when determined appropriate, oppose the use of private wastewater (septic) disposal systems, community wastewater disposal systems, or other non-regional sewage treatment and disposal systems within or adjacent to the Metropolitan Area if these types of wastewater treatment facilities would cause discharges that could result in groundwater degradation.

Policy PU-5-c **Satellite Facilities.** Work with the Regional Water Quality Control Board to ensure that approval of any satellite treatment and reclamation facility proposal is consistent with governing statutes and regulations.

Policy PU-7-a **Reduce Wastewater.** Identify and consider implementing water conservation standards and other programs and policies, as determined appropriate, to reduce wastewater flows.

Policy PU-7-b **Reduce Stormwater Leakage.** Reduce stormwater infiltration into the sewer collection system, where feasible, through a program of replacing old and deteriorated sewer collection pipeline; eliminating existing stormwater sewer cut-ins to the sanitary sewer system; and avoiding any new sewer cut-ins except when required to protect health and safety.

- Policy PU-7-c** **Biosolid Disposal.** Investigate and consider implementing economically effective and environmentally beneficial methods of biosolids handling and disposal.
- Policy PU-7-d** **Wastewater Recycling.** Pursue the development of a recycled water system and the expansion of beneficial wastewater recycling opportunities, including a timely technical, practicable, and institutional evaluation of treatment, facility siting, and water exchange elements.
- Commentary: This policy corresponds with Policy RC-6-d in the Resource Conservation and Resilience Element.
- Policy PU-7-e** **Infiltration Basins.** Continue to rehabilitate existing infiltration basins, and if determined appropriate, pursue acquiring additional sites for infiltration basins, as needed.
- Policy PU-7-f** **Food and Drink Industry.** Ensure adequate provision of facilities for the appropriate management of wastewater from wineries and food processing and beverage facilities, including conformance with Waste Discharge Requirements issued by the Regional Water Quality Control Board.

Southeast Development Area Specific Plan

The Fresno Southeast Development Area (SEDA) Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Specific Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to geology and soils:

Urban Form

- Objective UF-1** Create complete neighborhoods in the Southeast Development Area that integrate housing, business and retail amenities. Implement a Southeast Development Area plan that balances and mixes housing, jobs, commercial businesses, services, and public facilities to help meet existing thresholds for lower vehicle miles traveled, reduced air pollution, and the efficient use of groundwater resources in compliance with the Sustainable Groundwater Management Act of 2014.
- Policy UF-1.5** **Public Facilities and Open Spaces.** Support the development of public infrastructure, facilities, and parks that meet the needs of Plan Area residents according to the policies and standards set in the Open Space, Schools and Public Facilities Chapter and the General Plan.

Open Space, Schools, and Public Facilities

- Objective OS-14** Provide water, stormwater, and wastewater infrastructure necessary to serve development in the SEDA.

Policy OS-14.1 Provision of Water, Stormwater, and Wastewater Infrastructure. Provide water, stormwater, and wastewater infrastructure in accordance with the policies of the Greenhouse Gas Reduction and Conservation Chapter.

Greenhouse Gas Reduction and Conservation

Objective RC-5 Protect surface and groundwater supplies from major sources of pollution.

Policy RC-5.3 Construction Erosion.

- **Erosion and Sedimentation Control Plan:** Require all construction projects to create and implement a plan using State and local best management practices for erosion and sedimentation control.
- **Runoff Control:** Prevent loss of soil by stormwater runoff and sedimentation of storm sewers or receiving streams.

3.7.4 - Methodology

Impacts related to geology, soils, and paleontological resources resulting from implementation of the proposed project are discussed below. The following impact analysis is based on a review of published information, surveys, and reports regarding regional geology and soils. Information was obtained from private and governmental agencies and internet websites, including the CGS and the USGS.

3.7.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist as thresholds to determine whether impacts to geology and soils are significant environmental effects.

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts to resources are significant. These questions reflect the input of planning and environmental professionals at the Governor's Office of Planning and Research and the California Natural Resources Agency, based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. Accordingly, the City has derived its significance criteria, based, in part, on the questions posed in Appendix G. These significance criteria are as follows:

The proposed project would be considered significant if the project would:

- 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.

3.7.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

Earthquakes

Impact GEO-1:	The proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving: <ul style="list-style-type: none">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.
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Impact Analysis

i) Surface Fault Rupture

Buildout of the Specific Plan would not subject people or structures to hazards from surface rupture of a known active fault. The closest known active fault to the Plan Area is the Nunez Fault, which is located about 48 miles to the southwest of the project site. Furthermore, the nearest Alquist-Priolo Earthquake Fault Zone to the site is along the Nunez Fault. Therefore, the proposed project is not located near a fault and would not result in the rupture of a known earthquake fault. No impact would occur due to the distance of the Plan Area from the nearest known active fault.

ii) Strong Seismic Ground Shaking

The entire Planning Area is within a seismically active region that could experience strong ground shaking during a seismic event. The intensity of ground shaking will ultimately depend on the characteristics of the fault, distance from the fault, magnitude and duration of the earthquake, and site-specific geologic conditions. As previously discussed, the nearest fault to the project site is the Nunez Fault, located about 48 miles to the southwest.

The Fresno region has historically been subject to low to moderate ground shaking. Two of the historic earthquakes that caused ground shaking in the region, the Owens Valley Earthquake of 1872 and the Coalinga Earthquake of 1983, each generated ground shaking of Intensity VII in the region.^{24,25}

Potential structural damage and exposure of people to risk of injury or death from structural failure associated with strong seismic ground shaking would be reduced by compliance with CBC engineering design and construction measures. Foundations and other structural support features would be designed to resist or absorb damaging forces from strong ground shaking. The City of Fresno Municipal Code Section 11–102 incorporates the most recent CBC. The City reviews plans and applications for site clearance, grading, and building permits to ensure compliance with the CBC and imposes requirements for revisions where needed to ensure that new or significantly remodeled structures are constructed in compliance with the CBC, and reflect any additional measures deemed appropriate. Permit issuance would be based upon satisfactory completion of any identified applicable measures. Geotechnical investigations would be required for certain categories of projects considered for approval under the proposed project. Each geotechnical investigation would estimate seismic design parameters for its project site based on site-specific geologic and soil conditions and the types of building occupancies proposed.

Compliance with mandatory CBC requirements and implementation of General Plan Update policies and actions would ensure that future development projects are appropriately investigated in terms of potential seismic hazards and that any new buildings and structures are constructed to withstand strong seismic ground shaking. Therefore, impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction.

Secondary effects of earthquake shaking may include landslides, slope instability, liquefaction, subsidence, and lateral spreading. Liquefaction potential in the City of Fresno is considered low to moderate.²⁶ Additionally, no liquefaction from historic earthquakes has been observed in Fresno, and the potential for liquefaction in the City is considered very low to moderate.²⁷

²⁴ United States Geological Survey (USGS). M 7.4 – The 1872 Owens Valley, California Earthquake. Website: <https://earthquake.usgs.gov/earthquakes/eventpage/ushis161/impact>. Accessed December 13, 2024.

²⁵ City of Fresno. 2014. Fresno General Plan, Chapter 9 Noise and Safety, Seismic And Geologic Hazards, Page 369.

²⁶ California Geological Survey (CGS). 2008. Ground Motion Interpolator. Website: <https://www.conservation.ca.gov/cgs/ground-motion-interpolator>. Accessed May 12, 2022.

²⁷ Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

Buildings constructed under the proposed project could be subject to liquefaction. Geotechnical investigations would be required for certain categories of projects approved under the Specific Plan. Each geotechnical investigation would assess liquefaction potential on its project site and would provide needed recommendations, such as foundation design recommendations, to minimize hazards arising from liquefaction. Therefore, impacts related to seismic-related ground failure, such as liquefaction, ground settlement, lurching, lateral spreading, and ground cracking would be less than significant.

iv) Landslides

The proposed project is located in an area that is not at risk of large landslides. Small landslides could occur along canals within the Plan Area; however, appropriate setbacks would be implemented for any construction in these areas. Furthermore, geotechnical investigations for projects considered for approval under the Specific Plan would include site-specific assessments of the potential for landslides and would provide needed recommendations—such as for remedial grading and/or setbacks—to minimize any ensuing hazards. Therefore, impacts would be less than significant.

Conclusion

In conclusion, compliance with local codes, mandatory CBC requirements, and implementation of General Plan policies and objectives would ensure that future development projects are appropriately investigated in terms of potential seismic hazards, and that any new buildings and structures are constructed to withstand the anticipated range of seismic events. At the programmatic level, seismic impacts would be reduced to a less than significant level. Consistent with General Plan policies and objectives, individual development projects would be required to undergo project-specific environmental review to minimize risks of property damage and personal injury posed by geologic and seismic risks, which may require additional site-specific or project-specific measures to reduce any potential for loss, injury, or death in the event of a seismic event. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Soil Erosion or Topsoil Loss

Impact GEO-2:	The proposed project would not result in substantial soil erosion or the loss of topsoil.
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Impact Analysis

Development under the proposed project would involve construction activities such as stockpiling, grading, excavation, paving, and other earth-disturbing activities. Loose and disturbed soils are more

prone to erosion and loss of topsoil by wind and water. As such, soil erosion is dependent on individual site locations and conditions on-site during construction.

Construction activities that disturb one or more acre of land surface are subject to the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006-DWQ) adopted by the California State Water Resources Control Board (State Water Board). Compliance with the permit requires each qualifying development project to file a Notice of Intent with the State Water Board. Permit conditions require development of a SWPPP, which must describe the site, facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-stormwater management controls. Inspection of construction sites before and after a storm is also required to identify stormwater discharge from construction activity and to identify and implement erosion controls, where necessary.

The General Plan Policy NS-2-b requires a soil analysis to identify areas with potential soils hazards and requires development in these areas to conduct a soil analysis and mitigation plan by a registered civil engineer (or engineering geologist specializing in soil geology). Additionally, a preliminary soils report is required under Municipal Code Section 12-1022 for every subdivision for which a final map is required. Grading and erosion control requirements are set forth in Section 12-1023. Furthermore, SEDA Specific Plan Policy RC-5.3 would prevent erosion on construction sites during storm events by requiring all construction projects to create and implement an erosion and sedimentation control plan, and to control runoff on construction sites.

Compliance with mandatory NPDES permit requirements and the Municipal Code requirements and General Plan policies and proposed Specific Plan policies would minimize potential soil erosion impacts and loss of topsoil from construction-related soil disturbance for construction activities that occur pursuant to the proposed project. As such, potential impacts related to soil erosion and loss of topsoil would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Unstable Geologic Location

Impact GEO-3:	The proposed project would not 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.
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Impact Analysis

As discussed previously in Impact GEO-1(iii) and Impact GEO-1(iv), certain areas of the project site could have the potential for small landslides or liquefaction. As such, development allowed under

the proposed project could occur within areas containing unstable geologic units or be located on soils that are unstable or could become unstable from such development. The Fresno region is not known to be subject to subsidence hazards; therefore, buildout of the proposed project would not expose people or structures to substantial hazards from subsidence. Seismic settlement is not considered a significant hazard in the Fresno region due to the nature of the underlying soils and the history of low to moderate ground shaking. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. Lateral spreading is not considered a substantial hazard in the Fresno region for the same reasons pertaining to seismic ground settlement.²⁸

Geotechnical investigations for projects considered for approval under the proposed project would include site-specific assessments of the potential for unstable geologic units or unstable soils and would provide needed recommendations—such as for remedial grading and/or foundation design—to minimize any ensuing hazards.

As described previously, any development that occurs under the proposed project would be required to comply with Municipal Code Section 11-102, referred to as the Fresno Building Code, which implements the CBC. The CBC includes requirements to address development on areas containing unstable geologic units or in areas where soil is unstable. Typical measures to treat unstable soil conditions involve removal, proper fill selection, and compaction. In cases where soil remediation is not feasible, the CBC requires structural reinforcement of foundations to resist forces of being located within unstable geologic units or unstable soils.

Therefore, with the implementation of the policies and actions in the General Plan Update, as well as applicable State and local codes, potential impacts associated with development on unstable geologic units or unstable soils would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Expansive Soil

Impact GEO-4:	The proposed project would not 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.
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Impact Analysis

Development of projects under the proposed project could expose people or structures to hazards arising from expansive soils. New development constructed on expansive soils could be subject to damage or become unstable when underlying soil shrinks or swells. Soils underlying the Fresno

²⁸ Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

region consist partly of clays that are considered slightly to moderately expansive.²⁹ However, the Plan Area is not mapped as having moderately high to high expansion potential.³⁰

A preliminary soils report is required under Municipal Code Section 12-1022 for every subdivision for which a final map is required. General Plan Policy NS-2-b requires a soil analysis to be conducted by a registered civil engineer. Applicants for certain categories of projects would be required to conduct geotechnical studies for their projects before the City would issue building permits. Each geotechnical study would evaluate whether site soils were suitable for supporting the proposed structures. Each project applicant would be required to comply with the recommendations of the applicable geotechnical investigation report. Such reports usually conclude that at least the top few feet of soil are unsuited for supporting structures and recommend removing such soils and replacing them with engineered, moistened, and compacted fill soils. Compliance with the rules and regulations of the Municipal Code, including compliance with the CBC, and implementation of the General Plan policies, would ensure that potential impacts related to expansive soils remain less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

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.
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Impact Analysis

The proposed project would encourage planning of growth within the Plan Area. Under the General Plan Update, the location and timing of growth in the City would be planned. The proposed project would result in sewer improvements, and would require developers to build, or contribute toward design and construction, of sewers sufficient to convey wastewater generation at buildout of the proposed project. Implementation of the proposed project would not add land uses that would rely on septic tanks or other alternative wastewater disposal systems. The proposed project would include new sewer and water infrastructure needed to serve new development as part of the proposed comprehensive infrastructure plan. Thus, buildout of the proposed project would have a less than significant impact respecting soils incapable of supporting septic tanks or other alternative wastewater disposal systems.

²⁹ Krazan and Associates, Inc. 2012. Geologic Hazards Investigation, Fresno General Plan Update. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/E-1-Geologic-Hazards-Investigation.pdf>. Accessed May 11, 2022.

³⁰ County of Fresno. 2018. Multi-Hazard Mitigation Plan. Website: <https://www.co.fresno.ca.us/home/showpublisheddocument/35154>. Accessed May 13, 2022.

General Plan Objective PU-5 pertains to the preservation of groundwater quality to ensure that the health and safety of the entire Fresno community is not impaired by use of private, on-site disposal systems. Furthermore, General Plan Policy PU-5-a makes septic conversion mandatory by requiring the mandatory abatement of existing private wastewater disposal (septic) systems and mandatory connection to the public sewage collection and disposal system when determined appropriate. General Plan Policy PU-5-b discourages, and when determined appropriate, opposes the use of private wastewater (septic) disposal systems, community wastewater disposal systems, or other non-regional sewage treatment and disposal systems within or adjacent to the metropolitan area if these types of wastewater treatment facilities would cause discharges that could result in groundwater degradation. Additionally, SEDA Specific Plan Policy OS-14.1 pertains to the provision of water, stormwater, and wastewater infrastructure in accordance with the policies of the Water Resources Element; and SEDA Specific Plan Policy UF-1.5 pertains to building public infrastructure, facilities, and parks that meet the needs of Plan Area residents according to the policies and standards set in the Schools and Public Facilities, and Open Space and Recreation Elements.

Implementation of policies and objectives in the General Plan and the proposed project, as well as applicable local codes, would ensure that new septic tanks or alternative wastewater disposal systems are constructed on soils that can support such systems. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Destruction of Paleontological Resource or Unique Geologic Feature

Impact GEO-6:	The proposed project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
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Impact Analysis

Any project involving earthmoving activity could potentially result in inadvertent discovery and disturbance of paleontological resources during grading and excavation work. Based on the paleontological records search conducted for the proposed project by Kenneth L. Finger, PhD, on April 22, 2022, the project site and surrounding half-mile radius are mapped as Recent (Holocene) Great Valley fan deposits (Qf) and Pleistocene nonmarine deposits (Qc). Marchand and Allwardt (1975) identify the latter unit as the Riverbank Formation. Although Holocene deposits are too young to be fossiliferous, the Riverbank Formation has the potential to yield significant paleontological resources. The nearest known paleontological resource is located 5 miles east of the City.

Late Pleistocene deposits have a high paleontological sensitivity and a low to moderate paleontological potential for significant paleontological resources. The flat surface of the project area, much of which has developed for mixed uses, precludes any pre-construction paleontological surveys; however, the proposed project would implement Mitigation Measure (MM) GEO-6a, which requires all future development to conduct a field survey and literature search for the unique

paleontological/geological resources on any undisturbed soil, and MM GEO-6b, which requires that all future development conduct paleontological monitoring of construction activities on the site for all construction-related earth-disturbing activities that will impact previously undisturbed sediments. Pursuant to MM GEO-6b, should any significant paleontological resource (e.g., bones, teeth, well-preserved plants) be unearthed, all construction activities should be diverted at least 15 feet from the find until a professional Paleontologist has assessed it and, if deemed significant, salvaged it in a timely manner. Salvaged fossils should be deposited in an appropriate repository, where they will be properly curated and made available for future research.

As such, construction-related and earth-disturbing actions that occur under the proposed project have the potential to result in impacts on paleontological resources. However, MM GEO-6b, which requires paleontological monitoring, and MM GEO-6a, which requires a field survey and literature search for unique paleontological/geological resources if excavation or construction activities on undisturbed soils are to take place, would reduce impacts to paleontological resources. As such, with implementation of MM GEO- 6a and MM GEO-6b, potential impacts to paleontological resources would be reduced to less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

- MM GEO-6a** Subsequent to a preliminary City review of the project grading plans, if there is evidence that a project will include excavation or construction activities within previously undisturbed soils, a field survey and literature search for unique paleontological/geological resources shall be conducted. The following procedures shall be followed:
- If unique paleontological/geological resources are not found during either the field survey or literature search, excavation and/or construction activities can commence. In the event that unique paleontological/geological resources are discovered during excavation and/or construction activities, construction shall stop in the immediate vicinity of the find and a qualified Paleontologist shall be consulted to determine whether the resource requires further study. The qualified Paleontologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to, excavation of the finds and evaluation of the finds. If the resources are determined to be significant, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any paleontological/geological resources recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

- If unique paleontological/geological resources are found during the field survey or literature review, the resources shall be inventoried and evaluated for significance. If the resources are found to be significant, mitigation measures shall be identified by the qualified Paleontologist. Similar to above, appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. In addition, appropriate mitigation for excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include a paleontological monitor. The monitoring period shall be determined by the qualified Paleontologist. If additional paleontological/geological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed.

MM GEO-6b Applicants, owners and/or sponsors of all future development or construction projects shall be required to perform or provide paleontological monitoring during ground-disturbing activities. Should significant paleontological resources (e.g., bones, teeth, well-preserved plant elements) be unearthed by the future project construction crew, the project activities shall be diverted at least 15 feet from the discovered paleontological resources until a professional Paleontologist has assessed such discovered resources and, if deemed significant, such resources shall be salvaged in a timely manner. The applicant/owner/sponsor of said project shall be responsible for diverting project work and providing the assessment including retaining a professional Paleontologist for such purpose. Collected fossils shall be deposited by the applicant/owner/sponsor in an appropriate repository (e.g., University of California Museum of Paleontology (UCMP), California Academy of Sciences) where the collection shall be properly curated and made available for future research.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

3.7.7 - Cumulative Impacts

The geographic context for analysis of cumulative impacts related to geology, soils, and seismicity includes the Plan Area and the City of Fresno. This analysis evaluates whether impacts of the proposed project, together with impacts of cumulative development, could result in a cumulatively significant impact to geology, soils, seismicity, or paleontological resources. This analysis then considers whether incremental contribution of impacts associated with implementation of the proposed project would be significant. Both conditions must apply for a project's cumulative effects to rise to the level of significance. If both conditions apply, this analysis will then evaluate feasible cumulative mitigation that would reduce cumulative effects. If one or both conditions do not apply, cumulative impacts would be less than significant, and no cumulative mitigation is necessary.

Seismicity and Soils

Potentially adverse environmental effects associated with seismic hazards, as well as those associated with expansive soils, unstable geologic units, unstable soils, landslides, and erosion, usually are site-specific and generally do not result in cumulative effects.

Cumulative projects would be exposed to similar ground shaking during seismic events, but development of individual projects would not combine to increase the potential for cumulative impacts to occur. Individual development proposals would be reviewed separately by the appropriate public agency depending on location and undergo environmental review, if appropriate. In the event that future cumulative development would result in impacts related to geologic or seismic impacts, those potential project or site-specific impacts would be addressed in accordance with the requirements of CEQA at the project level. New buildings would be constructed utilizing current design and construction methodologies for earthquake resistant design as required by relevant regulations, including the Fresno County Code of Ordinances. Compliance with the CBC, NPDES permits, laws and regulations mentioned above would ensure that cumulative development would have less than significant impacts associated with geology, soils, or seismicity.

Seismic hazards affecting cumulative projects are expected to be moderate due to the low to moderate historic ground shaking in the region, and the distance to known active faults. Other projects would comply with CBC seismic safety requirements and would conduct project-specific geotechnical investigations and comply with recommendations in the reports of such investigations. The Fresno region bears little to no susceptibility to some seismic hazards, including surface rupture of a known active fault due to the lack of such faults in the region; and to seismic ground settlement and lateral spreading due to the nature of the soils underlying the City and the history of low to moderate ground shaking. Accordingly, cumulative impacts would be less than significant.

As previously discussed, development that occurs under the proposed project would be required to comply with provisions of the CBC, excavation and grading requirements of the Municipal Code and General Plan and proposed SEDA Specific Plan, and mandatory NPDES permit requirements to ensure that potential impacts related to site-specific geotechnical conditions remain less than significant. For these reasons, the proposed project's contribution to cumulative impacts on geology, soils, and seismicity are not cumulatively considerable and the cumulative impact would be less than significant.

As cumulative development occurs, all future projects must comply with the federal, State, and pertinent local regulations regarding structural stability, resulting in less than significant cumulative impacts related to subsidence or collapse. Moreover, the proposed project would not contribute to a cumulative impact on liquefaction, lateral spreading, or landslides. As discussed above, impacts related to subsidence or collapse are less than significant. Since the proposed project would experience less than significant impacts associated with subsidence or collapse impacts and these potential impacts are site-specific, the proposed project's contribution to cumulative subsidence or collapse is less than cumulatively considerable, and thus less than cumulatively significant.

Wastewater Disposal Systems

Cumulative development would not contribute to potential impacts on the soils related to septic tanks or alternative wastewater disposal systems since new development would be required to

adhere to General Plan policies regarding mandatory septic conversion, and the proposed project would include a comprehensive infrastructure plan. As discussed above, impacts related to soils supporting septic tanks or alternative wastewater disposal systems are less than significant. Therefore, implementation of the proposed project would not contribute to potential cumulative impacts related to soils supporting septic systems or alternative wastewater disposal systems, and potential cumulative impacts would be reduced to less than significant. Moreover, the proposed project's incremental contribution to these less than significant cumulative impacts would not be significant. As the City receives development applications for subsequent development under the proposed project, those applications would be reviewed by the City for compliance with the General Plan and the SEDA Specific Plan policies and objectives. Therefore, the proposed project would not contribute to cumulative impacts and would have less than significant cumulative impacts.

Destruction of Paleontological Resources or Unique Geologic Feature

Future development in the City has potential to cumulatively impact paleontological resources. However, all cumulative projects would be required to comply with federal and State policies related to protection of paleontological resources which reduces potential cumulative impacts to paleontological resources to less than significant. Moreover, the proposed project's incremental contribution to less than significant cumulative impacts would be less than significant. As the City receives development applications for subsequent development under the proposed project, those applications would be reviewed by the City for compliance with MM GEO-6a and MM GEO-6b, which require all future development in the Plan Area to conduct field surveys and literature searches for unique paleontological/geological resources on any previous undisturbed land and paleontological monitoring if any resources are discovered. Future development under the proposed project would also be required to conform to federal and State policies that protect paleontological resources, including Section 5097 of the California Public Resources Code. For these reasons, the proposed project's contribution to cumulative impacts on paleontological resources are not cumulatively considerable and would be less than significant.

Level of Cumulative Significance Before Mitigation

Less than significant impact.

Cumulative Mitigation Measures

None required.

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3.8 - Greenhouse Gas Emissions

3.8.1 - Introduction

This section describes the existing greenhouse gas (GHG) emissions setting and potential effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based, in part, on modeling information and assumptions presented in Section 3.3, Air Quality. The Greenhouse Gas Analysis is included in this Recirculated Draft Program Environmental Impact Report (Recirculated Draft PEIR) as Appendix B. No public comments were received during the Draft PEIR scoping period related to GHG emissions.

3.8.2 - Environmental Setting

Greenhouse Effect, Global Warming, and Climate Change

Most of the energy that affects Earth's climate comes from the sun. Some solar radiation is absorbed by Earth's surface, and a smaller portion of this radiation is reflected by the atmosphere back toward space. As Earth absorbs high-frequency solar radiation, its surface gains heat and then re-radiates lower frequency infrared radiation back into the atmosphere.¹

Most solar radiation passes through gases in the atmosphere classified as GHGs; however, infrared radiation is selectively absorbed by GHGs. GHGs in the atmosphere play a critical role in maintaining the balance between Earth's absorbed and radiated energy, Earth's radiation budget,² by trapping some of the infrared radiation emitted from Earth's surface that otherwise would have escaped to space. Radiative forcing is the difference between the incoming energy and outgoing energy.³ Specifically, GHGs affect the atmosphere's radiative forcing,⁴ which in turn affects Earth's average surface temperature. This phenomenon, the *greenhouse effect*, keeps Earth's atmosphere near the surface warmer than it would be otherwise and allows successful habitation by humans and other forms of life.

Combustion of fossil fuels and deforestation release carbon into the atmosphere that historically has been stored underground in sediments or in surface vegetation, thus exchanging carbon from the geosphere and biosphere to the atmosphere in the carbon cycle. With the accelerated increase in fossil fuel combustion and deforestation since the Industrial Revolution of the nineteenth century, concentrations of GHGs in the atmosphere have increased exponentially. Such emissions of GHGs in excess of natural ambient concentrations contribute to the enhancement of the natural greenhouse effect. This enhanced greenhouse effect has contributed to *global warming*, an increased rate of warming of Earth's average surface temperature.⁵ Specifically, increases in GHGs lead to increased

¹ Frequencies at which bodies emit radiation are proportional to temperature. The Earth has a much lower temperature than the sun and emits radiation at a lower frequency (longer wavelength) than the high-frequency (short-wavelength) solar radiation emitted by the sun.

² This includes all gains of incoming energy and all losses of outgoing energy; the planet is always striving to be in equilibrium.

³ Positive forcing tends to warm the surface while negative forcing tends to cool it.

⁴ This is the change in net irradiance at the tropopause after allowing stratospheric temperatures to readjust to radiative equilibrium, but with surface and tropospheric temperatures and state held fixed at the unperturbed values.

⁵ This condition results when Earth has to work harder to maintain its radiation budget, because when more GHGs are present in the atmosphere, Earth must force emissions of additional infrared radiation out into the atmosphere.

absorption of infrared radiation by Earth's atmosphere and warm the lower atmosphere further, thereby increasing temperatures and evaporation rates near the surface.

Variations in natural phenomena such as volcanoes and solar activity produced most of the global temperature increase that occurred during preindustrial times; more recently, however, increasing atmospheric GHG concentrations resulting from human activity have been responsible for most of the observed global temperature increase.⁶

Global warming affects global atmospheric circulation and temperatures; oceanic circulation and temperatures; wind and weather patterns; average sea level; ocean acidification; chemical reaction rates; precipitation rates, timing, and form; snowmelt timing and runoff flow; water supply; wildfire risks; and other phenomena, in a manner commonly referred to as *climate change*. Climate change is a change in the average weather of 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.

Temperature Predictions by the Intergovernmental Panel on Climate Change

The United Nations Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to understanding climate change, its potential impacts, and options for adaptation and mitigation. The IPCC constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Sixth Assessment Report, the IPCC predicted that the global mean temperature change from 2015 to 2100, given five scenarios, could range from 1.4°C (degrees Celsius) to 4.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios.⁷ The report also concluded that “[i]t is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.” Warming of the climate system is now considered to be unequivocal,⁸ with the likely range of total human-caused global surface temperature increases from approximately 0.8°C to 1.3°C since 1850.⁹

Greenhouse Gases and Global Emission Sources

Gases that trap heat in the atmosphere are referred to as GHGs. The effect is analogous to the way a greenhouse retains heat. Prominent GHGs that naturally occur in Earth's atmosphere are water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and ozone. Anthropogenic (human-

⁶ These basic conclusions have been endorsed by more than 45 scientific societies and academies of science, including all of the national academies of science of the major industrialized countries. Since 2007, no scientific body of national or international standing has maintained a dissenting opinion.

⁷ United Nations Intergovernmental Panel on Climate Change (IPCC). 2021. Climate Change 2021: The Physical Science Basis Summary for Policymakers.

⁸ Ibid.

⁹ Ibid.

caused) GHG emissions include releases of these GHGs plus release of human-made gases with high global warming potential (GWP) (ozone-depleting substances such as chlorofluorocarbons (CFCs)¹⁰ and aerosols, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). The GHGs listed by the IPCC (CO₂, methane, N₂O, HFCs, PFCs, and sulfur hexafluoride) are discussed below, in order of abundance in the atmosphere. Water vapor, despite being the most abundant GHG, is not discussed below because natural concentrations and fluctuations far outweigh anthropogenic influences, making it impossible to predict. Ozone is not included because it does not directly affect radiative forcing. Ozone-depleting substances, which include chlorofluorocarbons, halons, carbon tetrachloride, methyl chloroform, and hydrochlorofluorocarbons, are not included because they have been primarily replaced by HFCs and PFCs.

The GWP is the potential of a gas or aerosol to trap heat in the atmosphere. The GWP of a gas is essentially a measurement of the radiative forcing of a GHG compared with the reference gas, carbon dioxide (CO₂).

Individual GHG compounds have varying potential for contributing to global warming. For example, methane is 25 times as potent as CO₂, while sulfur hexafluoride is 22,200 times more potent than CO₂ on a molecule-per-molecule basis. To simplify reporting and analysis, methods have been set forth to describe emissions of GHGs in terms of a single gas. The most commonly accepted method for comparing GHG emissions is the GWP methodology defined in the IPCC reference documents. The IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalents (CO₂e), which compares the gas in question to that of the same mass of CO₂ (by definition, CO₂ has a GWP of 1). The GWP of a GHG is a measure of how much a given mass of a GHG is estimated to contribute to global warming. Thus, to describe how much global warming a given type and amount of GHG may cause, the CO₂e is used. A CO₂e is the mass emissions of an individual GHG multiplied by its GWP. As such, a high GWP represents high absorption of infrared radiation and a long atmospheric lifetime compared to CO₂. One must also select a time horizon to convert GHG emissions to equivalent CO₂ emissions to account for chemical reactivity and lifetime differences among various GHG species. The standard time horizon for climate change analysis is 100 years. Generally, GHG emissions are quantified in terms of metric tons (MT) of CO₂e (MT CO₂e) emitted per year.

Table 3.8-1 lists the GWP of each GHG and its lifetime. Units commonly used to describe the concentration of GHGs in the atmosphere are parts per million (ppm), parts per billion (ppb), and parts per trillion (ppt), referring to the number of molecules of the GHG in a sampling of 1 million, 1 billion, or 1 trillion molecules of air. Collectively, HFCs, PFCs, and sulfur hexafluoride are referred to as high GWP gases. CO₂ is by far the largest component of worldwide CO₂e emissions, followed by methane, N₂O, and high GWP gases, in order of decreasing contribution to CO₂e.

The primary human processes that release GHGs include the burning of fossil fuels for transportation, heating, and electricity generation; agricultural practices that release methane, such as livestock grazing and crop residue decomposition; and industrial processes that release smaller amounts of high GWP gases. Deforestation and land cover conversion have also been identified as

¹⁰ CFCs destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited CFCs production in 1987.

contributing to global warming by reducing Earth's capacity to remove CO₂ from the air and altering Earth's albedo or surface reflectance, thus allowing more solar radiation to be absorbed. Specifically, CO₂ emissions associated with fossil fuel combustion are the primary contributors to human-induced climate change. CO₂, methane, and N₂O emissions associated with human activities are the next largest contributors to climate change.

GHGs of California concern are defined by California Assembly Bill (AB) 32 (see the Regulatory Environment subsection below for a description) and include CO₂, CH₄, NO_x, HFCs, PFCs, and SF₆. A seventh GHG, nitrogen trifluoride (NF₃), was also added under the California Health and Safety Code Section 38505(g)(7) as a GHG of concern. These GHGs are described in Table 3.8-1 in terms of their physical description and properties, GWP, atmospheric residence lifetime, sources, and atmospheric concentration in 2005.

Table 3.8-1: Description of Greenhouse Gases of California Concern

Greenhouse Gas	Physical Description and Properties	Global Warming Potential (100 years)	Atmospheric Residence Lifetime (years)	Sources
Carbon dioxide (CO ₂)	Odorless, colorless, natural gas.	1	50-200	burning coal, oil, natural gas, and wood; decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; oceanic evaporation; volcanic outgassing; cement production; land use changes
Methane (CH ₄)	Flammable gas and is the main component of natural gas.	25	12	geological deposits (natural gas fields) extraction; landfills; fermentation of manure; and decay of organic matter
Nitrous oxide (N ₂ O)	Nitrous oxide (laughing gas) is a colorless GHG.	298	114	microbial processes in soil and water; fuel combustion; industrial processes
Chloro-fluoro-carbons (CFCs)	Nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (level of air at Earth's surface); formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms.	3,800-8,100	45-640	refrigerants aerosol propellants; cleaning solvents
Hydro-fluoro-carbons (HFCs)	Synthetic human-made chemicals used as a substitute for CFCs and contain carbon, chlorine, and at least one hydrogen atom.	140 to 11,700	1-50,000	automobile air conditioners; refrigerants

Greenhouse Gas	Physical Description and Properties	Global Warming Potential (100 years)	Atmospheric Residence Lifetime (years)	Sources
Per-fluoro-carbons (PFCs)	Stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface.	6,500 to 9,200	10,000-50,000	primary aluminum production; semiconductor manufacturing
Sulfur hexafluoride (SF ₆)	Human-made, inorganic, odorless, colorless, and nontoxic, nonflammable gas.	22,800	3,200	electrical power transmission equipment insulation; magnesium industry, semiconductor manufacturing; a tracer gas
Nitrogen trifluoride (NF ₃)	Inorganic, is used as a replacement for PFCs, and is a powerful oxidizing agent.	17,200	740	electronics manufacture for semiconductors and liquid crystal displays
<p>Sources:</p> <p>United Nations 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.</p> <p>United Nations Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Core Writing Team, Pachauri, R.K. and Reisinger, A. [eds.]). IPCC, Geneva, Switzerland.</p>				

The State has begun the process of addressing pollutants referred to as short-lived climate pollutants. Senate Bill (SB) 605, approved by the Governor on September 14, 2014, required the California Air Resources Board (ARB) to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants by January 1, 2016. The ARB released the Proposed Short-Lived Climate Pollutant Reduction Strategy in April 2016. 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.

The short-lived climate pollutants include three main components: black carbon, fluorinated gases, and methane. Fluorinated gases and methane are described in Table 3.8-1 and are already included in the California GHG inventory. Black carbon has not been included in past GHG inventories; however, the ARB will include it in its comprehensive strategy.¹¹

Black carbon is a component of fine particulate matter. Black carbon is formed by incomplete combustion of fossil fuels, biofuels, and biomass. Sources of black carbon within a jurisdiction may include exhaust from diesel trucks, vehicles, and equipment, as well as smoke from biogenic combustion. Biogenic combustion sources of black carbon include the burning of biofuels used for transportation, the burning of biomass for electricity generation and heating, prescribed burning of agricultural residue, and natural and unnatural wildfires. Black carbon is not a gas but an aerosol—

¹¹ California Air Resources Board (ARB). 2015. Short-Lived Climate Pollutant Reduction Strategy, Concept Paper. May.

particles or liquid droplets suspended in air. Black carbon only remains in the atmosphere for days to weeks, whereas other GHGs can remain in the atmosphere for years. Black carbon can be deposited on snow, where it absorbs sunlight, reduces sunlight reflectivity, and hastens snowmelt. Direct effects include absorbing incoming and outgoing radiation; indirectly, black carbon can also affect cloud reflectivity, precipitation, and surface dimming (cooling).

GWPs for black carbon were not defined by the IPCC in its Fourth Assessment Report. The ARB has identified a GWP of 3,200 using a 20-year time horizon and 900 using a 100-year time horizon from the IPCC Fifth Assessment. 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.¹² 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.

Ozone is another short-lived climate pollutant that will be part of the strategy. Ozone affects evaporation rates, cloud formation, and precipitation levels. Ozone is not directly emitted, so its precursor emissions, volatile organic compounds (VOC) and oxides of nitrogen (NO_x) on a regional scale and CH₄ on a hemispheric scale will be subject of the strategy.¹³

Water vapor is also considered a GHG. Water vapor is an important component of our climate system and is not regulated. Increasing water vapor leads to warmer temperatures, which causes more water vapor to be absorbed into the air. Warming and water absorption increase in a spiraling cycle. Water vapor feedback can also amplify the warming effect of other GHGs, such that the warming brought about by increased carbon dioxide allows more water vapor to enter the atmosphere.¹⁴

Global Climate Change Issue

Climate change is a global problem because GHGs are global pollutants, unlike criteria air pollutants and hazardous air pollutants (also called toxic air contaminants), which are pollutants of regional and local concern. Pollutants with localized air quality effects have relatively short atmospheric lifetimes, approximately 1 day; by contrast, GHGs have long atmospheric lifetimes, several years to several thousand years. GHGs persist in the atmosphere for a long enough time to be dispersed around the globe.

Although the exact lifetime of any particular GHG molecule depends on multiple variables and cannot be pinpointed, more CO₂ is currently emitted into the atmosphere than is sequestered. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through photosynthesis and dissolution, respectively. These are two of the most common processes of CO₂ sequestration. Of the total annual CO₂ emissions generated by human and natural causes in the decade 2011-2020, approximately 26 percent was sequestered through ocean uptake and approximately 29 percent was

¹² California Air Resources Board (ARB). 2015. Short-Lived Climate Pollutant Reduction Strategy, Concept Paper. May.

¹³ Ibid.

¹⁴ National Aeronautics and Space Administration (NASA). 2015. NASA—Global Climate Change, Vital Signs of a Planet. Website: <http://climate.nasa.gov/causes/>. Accessed June 24, 2022.

sequestered through land vegetation, whereas the remaining 45 percent of CO₂ emissions is stored in the atmosphere.¹⁵

Similarly, effects of GHGs are borne globally, as opposed to the localized air quality effects of criteria air pollutants and hazardous air pollutants. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known and cannot be quantified, and no single project would be expected to measurably contribute to a noticeable incremental change in the global average temperature, or to global or local climates or microclimate.

Emissions of GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. A cumulative discussion and analysis of project impacts on global climate change is presented in this EIR because, although it is unlikely that a single project will contribute significantly to climate change, cumulative emissions from many projects affect global GHG concentrations and the climate system.

Global climate change has the potential to result in sea level rise (resulting in flooding of low-lying areas), to affect rainfall and snowfall (leading to changes in water supply), to affect temperatures and habitats (affecting biological resources and public health), and to result in many other adverse environmental consequences.

Although the international, national, State, and regional communities are beginning to address GHGs and the potential effects of climate change, worldwide GHG emissions will likely continue to rise over the next decades.

Climate and Topography

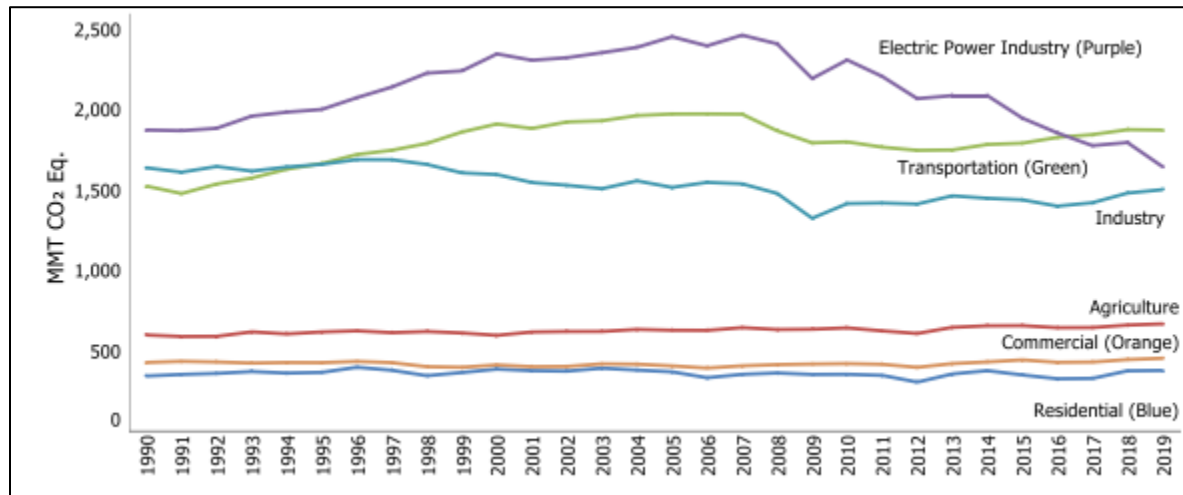
Climate is the accumulation of daily and seasonal weather events over a long period of time, whereas weather is defined as the condition of the atmosphere at any particular time and place. For a detailed discussion of existing regional and project site climate and topography, see Section 3.2, Air Quality.

Existing GHG Emissions

United States GHG Inventory

Total U.S. GHG emissions in 2019 were 6,558 million metric tons (MMT) CO₂e, increasing overall by 1.8 percent from 1990 to 2019.¹⁶ Figure 3.8-1 presents the trend in U.S. GHG emissions by economic sector during this time. Since 1990, U.S. emissions have increased at an average annual rate of 0.3 percent. Transportation emissions also increased because of an increase in Vehicle Miles Traveled (VMT). Within the United States, fossil fuel combustion accounted for 92.4 percent of CO₂ emissions in 2019. Transportation was the largest emitter of CO₂ in 2019, accounting for 28.6 percent of emissions, followed by electric power generation, accounting for 25.1 percent.

¹⁶ United States Environmental Protection Agency (EPA). 2021. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2019—Executive Summary.



Note: Emissions shown do not include carbon sinks such as change in land uses and forestry.

Source: United States Environmental Protection Agency (EPA). 2021.

Figure 3.8-1: Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019

California GHG Inventory

As the second largest emitter of GHG emissions in the United States, California contributes a large quantity (418.2 MMT CO₂e in 2019) of GHG emissions to the atmosphere.^{17,18} Human-related emissions of CO₂ are largely byproducts of fossil fuel combustion and are attributable to transportation, industry/ manufacturing, electricity generation, natural gas consumption, and agriculture processes. In California, the transportation sector is the largest emitter at 41 percent of GHG emissions, followed by industrial at 24 percent of GHG emissions.¹⁹

Climate Change Trends and Effects

CO₂ accounts for more than 75 percent of all anthropogenic GHG emissions, the atmospheric residence time of CO₂ is decades to centuries, and global atmospheric concentrations of CO₂ continue to increase at a faster rate than ever previously recorded. Thus, the warming impacts of CO₂ will persist for hundreds of years after mitigation is implemented to reduce GHG concentrations.

California

Substantially higher temperatures, more extreme wildfires, and rising sea levels are just some of the direct effects experienced in California.^{20,21} As reported by the California Natural Resources Agency in 2009, despite annual variations in weather patterns, California has seen a trend of increased average temperatures, more extreme hot days, fewer cold nights, longer growing seasons, less winter snow, and earlier snowmelt and rainwater runoff. Statewide average temperatures increased by about 1.7°F from 1895 to 2011, and a larger proportion of total precipitation is falling as rain

¹⁷ World Resources Institute (WRI). 2017. 8 Charts to Understand US State Greenhouse Gas Emissions. Website:

<https://www.wri.org/insights/8-charts-understand-us-state-greenhouse-gas-emissions>. Accessed June 24, 2022.

¹⁸ California Air Resources Board (ARB). 2021. Current California GHG Emission Inventory Data, 2000-2019 Trends Figure Data. Website: <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed June 24, 2022.

¹⁹ California Air Resources Board (ARB). 2021. California Greenhouse Gas Emissions for 2000 to 2019.

²⁰ California Natural Resources Agency (NRA). 2009. 2009 California Climate Adaptation Strategy: A Report to the Governor of the State of California in Response to Executive Order S-13-2008.

²¹ California Energy Commission (CEC). 2012. Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California.

instead of snow.²² Sea level rose by as much as 7 inches along the California coast over the last century, leading to increased erosion and adding pressure to the State's infrastructure, water supplies, and natural resources.

These observed trends in California's climate are projected to continue in the future. Research indicates that California will experience overall hotter and drier conditions with a continued reduction in winter snow (with concurrent increases in winter rains), as well as increased average temperatures and accelerating sea level rise. The frequency, intensity, and duration of extreme weather events such as heat waves, wildfires, droughts, and floods will also change.²³ In addition, increased air pollution and spread of insects potentially carrying infectious diseases will also occur as the climate-associated temperature and associated species clines shift in latitude.

The following is a summary of climate change factors and predicted trends specific to California.

In California, climate change may result in consequences such as the following.^{24,25}

- **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.
- **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 7 inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is

²² California Energy Commission (CEC). 2006. Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004. Draft Final Report. CEC-600-2006-013-D.

²³ California Natural Resources Agency (CNRA). 2009. 2009 California Climate Adaptation Strategy: A Report to the Governor of the State of California in Response to Executive Order S-13-2008.

²⁴ California Climate Change Center. (CCCC). 2006. Our Changing Climate: Assessing the Risks to California.

²⁵ California Energy Commission (CEC). 2009. The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California.

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 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 Fresno Area

Source: Cal-Adapt. 2022. Local Climate Snapshots. Website: <https://beta.cal-adapt.org/tools/local-climate-change-snapshot>. Accessed June 24, 2022.

Figure 3.8-2 displays a chart of measured historical and projected annual average temperatures in the Fresno area. As shown in the figure, temperatures are expected to rise in the medium and high GHG emissions scenarios. The results indicate that temperatures are predicted to increase by 4.5°F (degrees Fahrenheit) under the medium emission scenario and 8.5°F under the high emissions scenario.

Temperature/Heat/Wildfire and Drought Events

Because of increasing GHG emissions and temperature increases, increasing large wildfires (greater than 25,000 acres) could become 50 percent more frequent by the end of the century. Incidences of extreme heat are expected to increase in both intensity and length as a result of climate change.²⁶

Precipitation/Rainfall/Flooding Events

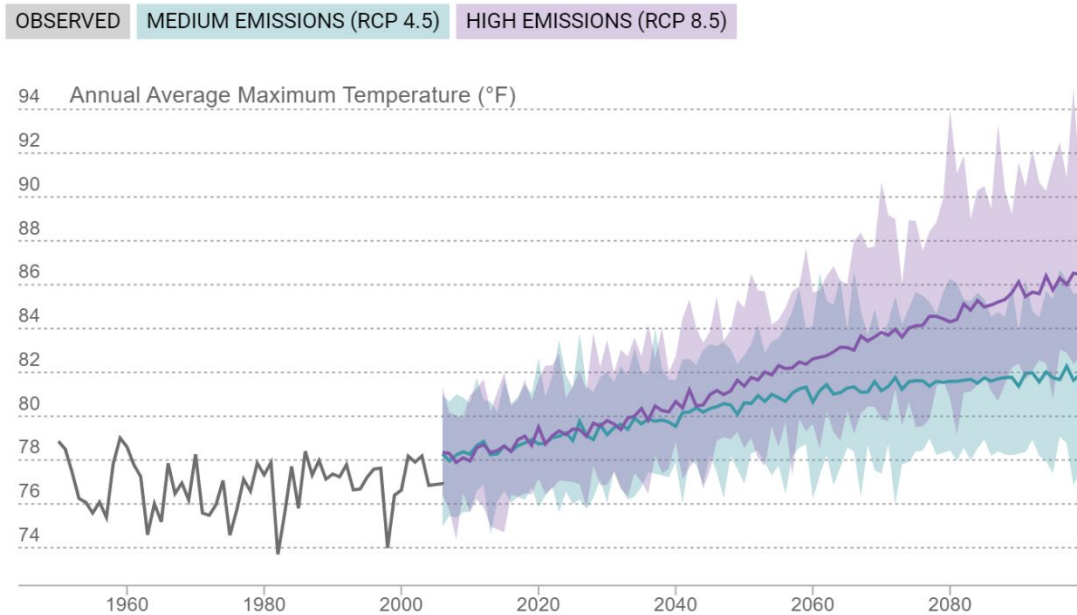
By 2050, the average water supply from snowpack is projected to decline to two-thirds from historical levels. If emissions reductions do not occur, water from snowpack could fall to less than one-third of historical levels by 2100.²⁷

²⁶ California Energy Commission. California's Fourth Climate Change Assessment: California's Changing Climate 2018.

²⁷ Ibid.

Annual Average Maximum Temperature

Average of all the hottest daily temperatures in a year.



Source: Cal-Adapt. 2022. Local Climate Snapshots. Website: <https://beta.cal-adapt.org/tools/local-climate-change-snapshot>. Accessed June 24, 2022.

Figure 3.8-2: Observed and Projected Temperatures for Climate Change in the City of Fresno Area

3.8.3 - Regulatory Framework

International

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.

Kyoto Protocol

In 1988, the United Nations established the IPCC to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto Protocol were met, global GHG emissions could have been reduced an estimated 5 percent from

1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto Protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto.

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.

Paris Climate Change Agreement

Parties to the UNFCCC reached a landmark agreement on December 12, 2015, in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a 4-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." Together, the Paris Agreement and the accompanying COP decision:²⁸

- 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

²⁸ Center for Climate and Energy Solutions (C2ES). 2015. Outcomes of the U.N. Climate Change Conference in Paris.

- 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.²⁹

On June 1, 2017, President Trump announced the decision for the United States to withdraw from the Paris Climate Accord and the United States officially filed its intent to withdraw on November 4, 2019. Following the 1-year grace period for withdrawal from the Agreement, the United States formally withdrew from the Agreement on November 4, 2020. President Biden rejoined the Agreement on his first day in office, January 20, 2021. The United States officially became a party to the Agreement once again on February 19, 2021, after a mandatory 30-day waiting period.³⁰

Federal

Prior to the last decade, there were no concrete federal regulations of GHGs or major planning for climate change adaptation. Since then, federal activity has increased. The following are actions regarding the federal government, GHGs, and fuel efficiency.

Massachusetts et al. v. EPA (U.S. Supreme Court GHG Endangerment Ruling)

Massachusetts et al. v. EPA (Supreme Court Case 05-1120) was argued before the United States (U.S.) Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four GHGs, including CO₂, under Section 202(a)(1) of the Clean Air Act (CAA). A decision was made on April 2, 2007, in which the Supreme Court found that GHGs are air pollutants covered by the CAA. 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 CAA:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆—in the atmosphere threaten the public health and welfare of current and future generations; and
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed greenhouse gases 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 or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed under “Clean Vehicles” below. After a lengthy legal challenge, the U.S. Supreme Court declined to review an Appeals Court ruling upholding that upheld the EPA Administrator findings.

²⁹ Center for Climate and Energy Solutions (C²ES). 2015. Outcomes of the U.N. Climate Change Conference in Paris.

³⁰ United States Department of State. 2021. The United States Officially Rejoins the Paris Agreement. <https://www.state.gov/the-united-states-officially-rejoins-the-paris-agreement/>. Accessed June 24, 2022.

U.S. Consolidated Appropriations Act (Mandatory GHG Reporting)

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 MT or more per year of GHG emissions are required to submit annual reports to the EPA. The first annual reports for the largest emitting facilities, covering calendar year 2010, were submitted to EPA in 2011.

U.S. Clean Air Act Permitting Programs (New GHG 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 Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule “tailors” the requirements of these CAA 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.

Energy Independence and Security Act

The Energy Policy Act of 2005 created the Renewable Fuel Standard program. The Energy Independence and Security Act of 2007 expanded this program by:

- Expanding the Renewable Fuel Standard program to include diesel in addition to gasoline.
- Increasing the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.

- Establishing new categories of renewable fuel and setting separate volume requirements for each one.
- Requiring EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

This expanded Renewable Fuel Standard program lays the foundation for achieving substantial reductions of GHG emissions from the use of renewable fuels, reducing the use of imported petroleum, and encouraging the development and expansion of the nation's renewable fuels sector.

Signed on December 19, 2007, by President George W. Bush, the Energy Independence and Security Act of 2007 (EISA) aims to:

- Move the United States toward greater energy independence and security.
- Increase the production of clean renewable fuels.
- Protect consumers.
- Increase the efficiency of products, buildings, and vehicles.
- Promote research on and deploy GHG emission capture and storage options.
- Improve the energy performance of the federal government.
- Increase U.S. energy security, develop renewable fuel production, and improve vehicle fuel economy.

EISA reinforces the energy reduction goals for federal agencies put forth in Executive Order 13423, as well as introduces more aggressive requirements. The three key provisions enacted are the Corporate Average Fuel Economy Standards, the Renewable Fuel Standard, and the appliance/lighting efficiency standards.

The EPA is committed to developing, implementing, and revising both regulations and voluntary programs under the following subtitles in EISA, among others: ³¹

- Increased Corporate Average Fuel Economy Standards
- Federal Vehicle Fleets
- Renewable Fuel Standard
- Biofuels Infrastructure
- Carbon Capture and Sequestration

The EPA and National Highway Traffic Safety Administration Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards Final Rule

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 April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) 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 EPA and the NHTSA

³¹ United States Environment Protection Agency (EPA). Summary of the Energy Independence and Security Act. Website: <https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act>. Accessed June 24, 2022.

issued final rules on a second phase joint rulemaking, establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012.³² 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 fleet wide level of 163 grams/mile of CO₂ in model year 2025, which is equivalent to 54.5 miles per gallon if achieved exclusively through fuel economy improvements.

The EPA and NHTSA 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 CO₂ 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). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10 percent reduction in fuel consumption and CO₂ emissions from the 2014 to 2018 model years.

The State of California has received a waiver from the EPA to have separate, stricter Corporate Average Fuel Economy Standards. Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the incidental reduction of GHG emissions. In order to manage the State's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975.

State

California Assembly Bill 32: Global Warming Solutions Act and Scoping Plan

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 CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. 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 State has made steady progress in implementing AB 32. The ARB's initial Climate Change Scoping Plan (Scoping Plan) contained measures designed to reduce the State's emissions to 1990 levels by the year 2020 to comply with AB 32.³³ The Scoping Plan identified recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target. In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. Capped strategies are subject to the ARB's Cap-and-Trade Program. The Cap-

³² 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.

³³ California Air Resources Board (ARB). 2008. Climate Change Scoping Plan, a framework for change.

and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions.

The State achieved the 2020 target several years ahead of schedule.³⁴ As further discussed below, the Scoping Plan has been subsequently updated to go beyond the emission reductions called for in the initial version, in line with more recent State policy directives.

California Senate Bill 32

Former Governor Brown signed SB 32 in September of 2016, giving ARB the statutory responsibility to include the 2030 emissions 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.” As such, SB 32 lays the foundation for the legislative reduction targets for 2030.

Assembly Bill 1279

AB 1279 (2022) establishes the policy of the State to achieve carbon neutrality as soon as possible, but no later than 2045 and maintain net negative greenhouse gas emissions thereafter, and to ensure that by 2045 Statewide anthropogenic greenhouse gas emissions are reduced at least 85 percent below 1990 levels. The Bill requires ARB to ensure that the Scoping Plan identifies and recommends measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable carbon dioxide removal and carbon capture, utilization, and storage technologies to complement these emission reductions.

2022 Scoping Plan

The most recent version of the ARB’s Scoping Plan, the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), addresses the new AB1279 targets and was adopted on December 15, 2022. This plan builds upon previously adopted Scoping Plans, including the 2017 Scoping Plan which originally addressed the emission reduction goals in SB 32, and provides a detailed sector-by-sector guide to address climate change by cutting greenhouse gas emissions by 85 percent and achieving carbon neutrality in 2045, with the main focus of emission reductions efforts being the transportation and energy sectors.³⁵

California Executive Order S-3-05 (GHG Emissions Reduction Targets)

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 GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

³⁴ California Air Resources Board (ARB). 2008. Climate Change Scoping Plan, a framework for change.

³⁵ California Air Resources Board (ARB). 2022. The 2022 Scoping Plan for Achieving Carbon Neutrality. Accessed December 2022.

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.

California AB 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 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 U.S. District Court for the District of Columbia in 2011.³⁶

The standards are to be phased in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards will result in an approximately 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.³⁷

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 will 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.³⁸

California SB 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

³⁶ Legislative Counsel's Digest. 2002. Assembly Bill No. 1493.

³⁷ California Air Resources Board (ARB). 2022. Advanced Clean Cars Program. Website: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about>. Accessed June 30, 2022

³⁸ California Air Resources Board (ARB). 2011. Status of Scoping Plan Recommended Measures.

2020. The ARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23.

California SB 375: Sustainable Communities and Climate Protection Act

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 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 proposed project on global warming or the regional transportation network if the proposed project:

1. Is in an area with an approved Sustainable Communities Strategy (SCS) or an alternative planning strategy that the ARB accepts as achieving the GHG 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.

California SB 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 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 (lbs) CO₂ per megawatt-hour (MWh).

California 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 an Low Carbon Fuel Standard (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. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by CEC on December 24, 2007) and was submitted to the ARB for consideration as an “early action” item under AB 32. 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 Low Carbon Fuel Standards. In a partially published opinion, the Court of Appeal directed that Resolution 09-31 and two Executive Orders of 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 ARB complies with the procedural requirements it failed to satisfy.

To address the Court ruling, ARB was required to bring a new LCFS regulation to the Board for consideration 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, 2015.³⁹

California 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 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.

California SBX 7-7: Water Conservation Act

This 2009 legislation directs urban retail water suppliers to set individual 2020 per capita water use targets and begin implementing conservation measures to achieve those goals. Meeting this

³⁹ California Air Resources Board (ARB). 2015. Low Carbon Fuel Standard Regulation. Website: <http://www.arb.ca.gov/regact/2015/lcfs2015/lcfs2015.htm>. Accessed June 24, 2022.

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.

California SB 350: Clean Energy and Pollution Reduction Act

In 2015, the State Legislature approved and the Governor signed SB 350 that 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 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 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.⁴⁰

California Executive Order B-30-15

On April 29, 2015, an Executive Order was issued by the Governor to establish a California GHG emissions 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 MMT CO₂e. 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.

California Code of Regulations 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

⁴⁰ California Legislative Information (California Leginfo). 2015. Senate Bill 350 Clean Energy and Pollution Reduction Act of 2015. Website: https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201520160SB350. Accessed June 24, 2022.

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.⁴¹ The 2019 Building Energy Efficiency Standards went into effect on January 1, 2020.

California Code of Regulations 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 2022 Building Energy Efficiency Standards went into effect on January 1, 2023.⁴²

California Code of Regulations 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 2022 California Green Building Code Standards Code (CALGreen) which became effective January 1, 2023.⁴³ Local jurisdictions are permitted to adopt more stringent requirements, as State law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances and defers to them as the ruling guidance provided they provide a minimum 50 percent diversion requirement. The Code also provides exemptions for areas not served by construction and demolition recycling infrastructure. The California Building Standards Code (CBC) 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.

California Code of Regulations, Title 24, Part 11 requires the following:

- **Short-term bicycle parking.** If a commercial project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- **Long-term bicycle parking.** For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of tenant-occupied motorized vehicle parking capacity, with a minimum of one space (5.106.4.1.2).
- **Designated parking.** Provide designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).

⁴¹ California Energy Commission (CEC). 2022. Appliance Energy Efficiency Regulations—Title 20. Website: <https://www.energy.ca.gov/rules-and-regulations/appliance-efficiency-regulations-title-20>. Accessed June 24, 2022.

⁴² California Energy Commission. 2023. 2022 Building Energy Efficiency Standards. Website: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>. Accessed March 15, 2023.

⁴³ State of California. 2022. California Green Building Standards Code (CALGreen). Website: <https://calgreenenergyservices.com/>. Accessed March 21, 2023.

- **Recycling by Occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling (5.410.1).
- **Construction waste.** A minimum 65 percent diversion of construction and demolition waste from landfills. (5.408.1, A5.408.3.1 [nonresidential], A5.408.3.1 [residential]). All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled (5.408.3).
- **Wastewater reduction.** Each building shall reduce the generation of wastewater by one of the following methods:
 1. The installation of water conserving fixtures or
 2. Using nonpotable water systems (5.303.4).
- **Water use savings.** 20 percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35, and 40 percent reductions (5.303.2, A5303.2.3 [nonresidential]).
- **Water meters.** Separate water meters for buildings in excess of 50,000 square feet or buildings projected to consume more than 1,000 gallons per day (5.303.1).
- **Irrigation efficiency.** Moisture-sensing irrigation systems for larger landscaped areas (5.304.3).
- **Materials pollution control.** Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particleboard (5.404).
- **Building commissioning.** Mandatory inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies (5.410.2).

California 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 for 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
- 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.

California SB 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 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).

California Supreme Court GHG Ruling

In a November 30, 2015, ruling, the *California Supreme Court in Center for Biological Diversity v. California Department of Fish and Wildlife* on the Newhall Ranch project 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. The Court offered potential solutions on pages 25-27 of the ruling to address this issue summarized below:

Specifically, the Court advised that:

- **Substantiation of Project Reductions from Business as Usual (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).
- **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 (CAPs) or GHG 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).

Regional

San Joaquin Valley Air Pollution Control District Climate Change Action Plan

On August 21, 2008, the San Joaquin Valley Air Pollution Control District (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 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 result in a 29 percent reduction when compared with the BAU projections identified in the ARB AB 32 Scoping Plan.

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 agreed 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.

Fresno Council of Governments 2022 Regional Transportation Plan and Sustainable Communities Strategy

SB 375 requires the Metropolitan Planning Organization (MPO) to prepare a SCS in their regional transportation plan. The SCS establishes a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS provides growth strategies to achieve the regional GHG emissions reduction targets. It does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency. The eight counties of the San Joaquin Valley are coordinating on development of their SCS to maximize resources through the Valley Vision SCS process. However, each MPO is developing a separate SCS. The Fresno Council of Governments' (Fresno COG) 2022 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted on July 28, 2022. The RTP/SCS includes modeling and quantification of GHG emissions and carbon sequestration in natural and working lands and charts the long-range vision of regional transportation in Fresno County through the year 2046. The RTP identifies existing and future transportation related needs, while considering all modes of travel, analyzing alternative solutions, and identifying what can be completed with anticipated available funding for the projects and programs included within it. The SCS is intended to show how integrated land use and transportation planning can lead to lower GHG emissions from autos and light trucks in support of ARB's GHG emission reduction targets.⁴⁴

Local**Fresno General Plan**

The Fresno General Plan contains the following goals and policies related to GHG emissions:

Resource Conservation and Resiliency Element

Objective RC-2 Promote land uses that conserve resources.

Policy RC-2-a Link Land Use to Transportation. Promote mixed-use, higher density infill development in multi-modal corridors. Support land use patterns that make more efficient use of the transportation system and plan future transportation investments in areas of higher-intensity development. Discourage investment in infrastructure that would not meet these criteria.

Policy RC-5-a Support State Goal to Reduce Statewide GHG Emissions. As is consistent with State law, strive to meet AB 32 goal to reduce greenhouse gas emissions to 1990 levels by 2020 and strive to meet a reduction of 80 percent below 1990 levels by 2050 as stated in Executive Order S-03-05. As new Statewide GHG reduction targets and dates are set by the State update the City's Greenhouse Gas Reduction Plan to include a comprehensive strategy to achieve consistency with those targets by the dates established.

⁴⁴ Fresno Council of Governments (Fresno COG). 2017. Regional Transportation Plan Sustainable Communities Strategy 2022-2046. July.

Policy RC-5-b Greenhouse Gas Reduction Plan. As is consistent with State law, prepare and adopt a Greenhouse Gas Reduction Plan as part of the Master Environmental Impact Report to be concurrently approved with the Fresno General Plan in order to achieve compliance with State mandates, assist development by streamlining the approval process, and focus on feasible actions the City can take to minimize the adverse impacts of growth and development on global climate change. The Greenhouse Gas Reduction Plan shall include, but not be limited to:

- A baseline inventory of all known or reasonably discoverable sources of GHGs that currently exist in the City and sources that existed in 1990.
- A projected inventory of the GHGs that can reasonably be expected to be emitted from those sources in the year 2035 with implementation of this General Plan and foreseeable community-wide and municipal operations.
- A target for the reduction of emissions from those identified sources.
- A list of feasible GHG reduction measures to meet the reduction target, including energy conservation and “green building” requirements in municipal buildings and private development.
- Periodically update municipal and community-wide GHG emissions inventories to determine the efficacy of adopted measures and to guide future policy formulation needed to achieve and maintain GHG emissions reduction targets.

Policy RC-5-c GHG Reduction through Design and Operations. Increase efforts to incorporate requirements for GHG emission reductions in land use entitlement decisions, facility design, and operational measures subject to City regulation through the following measures and strategies:

- Promote the expansion of incentive-based programs that involve certification of projects for energy and water efficiency and resiliency. These certification programs and scoring systems may include public agency “Green” and conservation criteria, Energy Star™ certification, CALGreen Tier 1 or Tier 2, Leadership in Energy-Efficient Design (LEED®) certification, etc.
- Promote appropriate energy and water conservation standards and facilitate mixed-use projects, new incentives for infill development, and the incorporation of mass transit, bicycle and pedestrian amenities into public and private projects.
- Require energy and water audits and upgrades for water conservation, energy efficiency, and mass transit, pedestrian, and bicycle amenities at the time of renovation, change in use, change in occupancy, and change in ownership for major projects meeting review thresholds specified in an implementing ordinance.
- Incorporate the City’s “Guidelines for Ponding Basin/Pond Construction and Management to Control Mosquito Breeding” as conditions of approval for any project using an on-site stormwater basin to prevent possible increases in vector-borne illnesses associated with global climate change.

- Periodically evaluate the City's facility maintenance practices to determine whether there are additional opportunities to reduce GHGs through facility cleaning and painting, parks maintenance, road maintenance, and utility system maintenance.
- Periodically evaluate standards and mitigation strategies for highly vehicle-dependent land uses and facilities, such as drive-through facilities and auto-oriented development.

Policy RC-5-d SCS and CAP Conformity Analysis. Ensure that the City includes analysis of a project's conformity to an adopted regional Sustainable Community Strategy or Alternative Planning Strategy (APS), an adopted Climate Action Plan (CAP), and any other applicable City and regional greenhouse gas reduction strategies in effect at the time of project review.

Policy RC-5-e Ensure Compliance. Ensure ongoing compliance with GHG emissions reduction plans and programs by requiring that air quality measures are incorporated into projects' design, conditions of approval, and mitigation measures.

Policy RC-5-f Toolkit. Provide residents and project applicants with a "toolkit" of feasible measures that can be used to reduce GHG emissions, including educational materials on energy-efficient and "climate-friendly" products.

Policy RC-6-d Recycled Water. Prepare, Adopt, and implement a City of Fresno Recycled Water Master Plan.

Objective RC-7 Promote water conservation through standards, incentives, and capital investments.

Policy RC-7-a Water Conservation Program Target. Maintain a comprehensive conservation program to help reduce per capita water usage in the City's water service area to 243 gallons per capita per day (GPCD) by 2020 and 190 GPCD by 2035, by adopting conservation standards and implementing a program of incentives, design and operation standards, and user fees:

- Support programs that result in decreased water demand, such as landscaping standards that require drought-tolerant plants, rebates for water conserving devices and systems, turf replacement, xeriscape landscape for new homes, irrigation controllers, commercial/industrial/institutional water conserving programs, prioritized leak detection program, complete water system audit, landscape water audit and budget program, and retrofit upon resale ordinance.
- Implement the US Bureau of Reclamation Best Management Practices for water consideration as necessary to maintain the City's surface water entitlements.
- Adopt and implement policies in the event that an artificial lake is proposed for development.
- Work cooperatively toward effective uniform water conservation measures that would apply throughout the Planning Area.

- Expand efforts to educate the public about water supply issues and water conservation techniques.

Policy RC-7-b Water Pricing and Metering. Develop a tiered water cost structure for both residential and commercial users that will properly price water based on its true cost; require all new development to be metered for water use; and charge all customers the true, full cost of their water supply, including costs of acquisition, initial treatment, conveyance, wastewater treatment, operations, maintenance, and remediation.

Policy RC-7-c Best Practices for Conservation. Require all City facilities and all new private development to follow US Bureau of Reclamation Best Management Practices for water conservation, as warranted and appropriate.

Policy RC-7-d Update Standards for New Development. Continue to refine water saving and conservation standards for new development.

Policy RC-7-h Landscape Water Conservation Standards. Refine landscape water conservation standards that will apply to new development installed landscapes, building on the State Model Water Efficient Landscape Ordinance and other State regulations:

- Evaluate and apply, as appropriate, augmented xeriscape, “water wise,” and “green gardening” practices to be implemented in public and private landscaping design and maintenance.
- Facilitate implementation of the State’s Water Efficient Landscape Ordinance by developing alternative compliance measures that are easy to understand and observe.

Objective RC-8 Reduce the consumption of nonrenewable energy resources by requiring and encouraging conservation measures and the use of alternative energy sources.

Policy RC-8-a Existing Standards and Programs. Continue existing beneficial energy conservation programs, including adhering to the California Energy Code in new construction and major renovations.

Policy RC-8-b Energy Reduction Targets. Strive to reduce per capita residential electricity use to 1,800 kWh per year and nonresidential electricity use to 2,700 kWh per year per capita by developing and implementing incentives, design and operation standards, promoting alternative energy sources, and cost-effective savings.

Policy RC-8-c Energy Conservation in New Development. Consider providing an incentive program for new buildings that exceed California Energy Code requirements by 15 percent.

Policy RC-8-d - Incentives. Establish an incentive program for residential developers who commit to building all of their homes to ENERGY STAR performance guidelines.

Policy RC-8-h Solar Assistance. Identify and publicize information about financial mechanisms for private solar installations and provide over-the-counter permitting for solar installations meeting specified standards, which may include maximum size (in kW) of units that can be so approved.

Policy RC-8-I Renewable Target. Adopt and implement a program to increase the use of renewable energy to meet a given percentage of the City's peak electrical load within a given time frame.

Fresno Southeast Development Area Specific Plan

The Fresno Southeast Development Area (SEDA) Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to greenhouse gas emissions:

Urban Form

Objective UF-1 Create complete neighborhoods in the Southeast Development Area that integrate housing, business and retail amenities. Implement a Southeast Development Area plan that balances and mixes housing, jobs, commercial businesses, services, and public facilities to help meet existing thresholds for lower vehicle miles traveled, reduced air pollution, and the efficient use of groundwater resources in compliance with the Sustainable Groundwater Management Act of 2014.

Policy UF-1.2 Jobs-Housing Balance. Maintain a target jobs-housing balance of at least one job to 1.25 housing units within the Plan Area.

Objective UF-2 Provide a mix of Regional, Community, and Neighborhood Town Centers where individuals can live, work and play.

Policy UF-2.1 Network of Town Centers. The SEDA will include Mixed-Use Districts of Regional, Community and Neighborhood Town Centers that form a network of complementary employment, commercial, cultural and civic opportunities linked by multimodal transportation systems.

Objective UF-5 Provide a well-balanced transportation network accessible to all users.

Policy UF-5.2 Transit Service. Safe, convenient and frequent transit service will be provided to and within the SEDA via regional transit connections along Kings Canyon Boulevard alignment and potentially, along existing rail right-of-ways. Local service will be provided along primary internal circulation corridors, including Arterials and Collectors.

- a) **Regional Transit Planning.** Thoughtful transit planning must occur in order to incorporate the primary centers, particularly the Regional Town Center along Kings Canyon. A Bus Rapid Transit (BRT) extension study including planning, design and environmental analysis should be completed to evaluate the potential costs and benefits of extending the BRT to the SEDA Plan Area.
- b) **Station Location.** The location of transit stations and stops will better serve local community members if they are placed within or adjacent to major activity centers, schools, medical facilities, public places such as libraries, parks, senior centers, and recreation facilities, commercial uses and high-density residential and employment areas.
- c) **Station Connectivity and Accessibility.** To provide opportunities for the highest possible transit use, stations will feature a convenient and accessible path of travel and will include pedestrian and bicycle connections to the surrounding street network and transit transfer points. Bus stops and stations will be oriented toward major streets and public spaces, with primary commercial entrances opening directly toward bus stops. Important to ensuring all members within the SEDA community have access to transit opportunities, bus stops and stations will comply with the accessibility requirements of the Americans with Disabilities Act (ADA).

Policy UF-5.3 Bicycle and Pedestrian Travel. Promoting a network of pedestrian and bicycle routes, including dedicated trails, multi-purpose paths, and priority Bicycle Boulevards throughout the Plan Area will serve work, school, and recreational trips and provide options for healthier outcomes within the community. In addition, both existing and proposed regional trails will be coordinated in tandem within this walkable and bikeable network. The Fresno General Plan Figure MT-2: Paths and Trails and the Active Transportation Plan (ATP) identify active trails.

Policy UF-5.4 Safe Streets. Streets are designed for drivers, pedestrians, bicyclists, and transit users within the Southeast Fresno Development Area and will enhance safety within the community. SEDA street design will reflect best practice standards as included in the City of Fresno Complete Streets Policy, adopted by the City in 2019.

Policy UF-5.5 Ranking of Travel Modes. In order to create a cohesive network between all modes of travel within the SEDA, the Plan will prioritize the following travel modes:

- 1. Pedestrian
- 2. Bicycle
- 3. High-capacity transit
- 4. Automobile

Policy UF-5.6 Performance Standards & Evaluation. Transit will be provided as demand warrants. Upon Plan, buildout or when warranted, 10-minute peak-period headways will be provided along the BRT corridor (e.g., Kings Canyon), and 15-minute peak-period headways shall be provided for high-priority transit routes (e.g., De Wolf, Clovis).

In addition, all other transit routes in the planning area shall be operated at 30-minute headways upon Plan completion. Extended hour or late-night service shall be provided at 60-minute headways.

- Bus stop locations are generally placed at ¼ mile spacing. Bus stop placement will be prioritized at:
 - Schools and medical facilities
 - Libraries, parks, senior centers, and recreation facilities
 - Concentrated commercial areas
 - Concentrated residential and employment areas
- 1. **Bicycles:** A user-friendly bicycle network will be provided to welcome all riders throughout the entire Plan Area. Bicycle lanes including Class II and Class IV facilities should be provided on all Super Arterials, Arterials, and Local Streets. A Bicycle network should be designated on Neighborhood or Local Streets. Ensuring the safety of vulnerable users will be an important priority, as the Plan will seek to create a network of easy to use, lower stress amenities that provide the ability to connect riders to key destinations throughout the City, as described in the Fresno Active Transportation Plan (2017).
- 2. **Pedestrians:** A first-class pedestrian system shall be provided, including sidewalks on all streets, bicycle/pedestrian trails, and other design elements that prioritize safety and convenience for pedestrians, as described in the Fresno Active Transportation Plan (2017).
- 3. **Vehicles:** A highly connected, grid-based roadway system shall be provided for efficient vehicular travel. Please see the Streets and Circulation Standards in the Development Code and the City of Fresno's Department of Public Works Standard Drawings.

Policy UF-7.2 Parking Provisions. Encourage tight knit, walkable communities by capping the quantity of parking a development is required to provide based on accurate calculations representative of parking demand for future development.

Housing Choice and Affordability

Objective HC-3 Link housing and transportation together to limit family expenditures on both housing and transportation. The multimodal transportation network connects housing and jobs within the Southeast Development Area and to other major regional centers, facilitating internal travel by non-automobile means. The Urban Form Chapter addresses the location, distribution, and standards for transportation infrastructure investment, combining transportation options with land use development to ultimately lower travel costs for SEDA residents and employees.

Policy HC-3.2 Travel. Encourage accessible, mixed-use development that incorporates housing and jobs, while lowering daily vehicle miles traveled.

Policy HC-3.3 Smart Land Uses. Build smaller lot single-family and multifamily housing types which use less energy and water than larger units.

Open Space, Schools, and Public Facilities

Objective OS-2 Create and maintain an open space network that serves multiple purposes, including recreation, stormwater management, community farming, and environmental preservation.

Policy OS-2.5 Renewable Energy Generation. Support renewable energy technology systems in open spaces, where appropriate.

- a) Pursue arrangements with public agencies and private partners to accommodate renewable energy systems, such as solar arrays, in areas that can serve a joint use as passive open space.

Objective OS-6 Ensure that all park, trail, and recreational facilities make the most efficient use of energy, water, and other natural resources.

Policy OS-6.1 Green Building. As important civic structures, park buildings shall conform to green building standards for energy and water efficiency.

Policy OS-6.3 Renewable Energy Systems. Explore developing renewable energy systems to provide power to park facilities.

Objective OS-10 Civic facilities, such as libraries, community centers, senior centers, post offices, and other civic buildings, will be integrated into the urban fabric of centers and communities, and will be well-served by public transit, paths, and trails.

Policy OS-10.5 On-Site Renewable Energy Generation. Pursue opportunities to develop renewable energy systems for civic facilities.

Greenhouse Gas Reduction and Conservation

Objective RC-1 Meet Statewide targets set for greenhouse gas emissions reductions as set forth in the City's updated GHG Reduction Plan, adopted in 2021.

Policy RC-1.1 Land Use Strategies. Link land use and transportation by incorporating the following components into SEDA's land use plan:

- a) Compact Development. Maximize opportunities in the SEDA for compact, higher density development to provide more housing, conserve resources, and reduce travel distances.
- b) Design the Neighborhood, Community, and Regional Town Centers in the SEDA as Mixed-Use Districts that include ground floor retail, civic and other commercial uses and upper floors of office and residential uses. Locate mixed-use development along high-quality transit corridors such as the Ventura/Kings Canyon Corridor that will serve SEDA's Regional Town Center. Incentivize

developments that are mixed use, defined as pedestrian-friendly development that blends two or more residential, commercial, cultural or institutional uses, one of which must be residential.

- c) **Pedestrian-Oriented Development.** Providing pedestrian-friendly infrastructure such as sidewalks, paths, and direct connections to neighboring uses such as shopping, schools, libraries, and parks increases the potential for people to make trips on foot, bicycle, or transit instead of by car. New development should include all sidewalks, paths, trails, and facilities required by the General Plan, the Active Transportation Plan and the SEDA.
- d) **Incentives for Pedestrian-Oriented Anchor Retail.** Consider adopting and implementing incentives for new pedestrian-friendly anchor retail to be applied within the SEDA's Regional, Community, and Neighborhood Town Centers.
- e) **Complete Streets.** Ensure that all streets in the SEDA comply with the City's Complete Streets Policy.
- f) **Transit Oriented Development.** Design land uses and integrate development site plans along high-quality transit corridors such as the Ventura/Kings Canyon Corridor, with transit oriented development that supports transit ridership and convenient pedestrian access to bus stops and station stops.

Policy RC-1.2 Transportation Facilities Strategies. Provide the following interconnected transportation facilities to encourage use of alternative modes of transportation and reduce vehicle trips:

- a) **Transit Facilities.** Ensure adequate transit routes and facilities are provided in the SEDA through coordination between the Planning and Development and FAX [Fresno Area Express] Departments. Planned facilities should include bus stops, multimodal transfer centers and information kiosks.
- b) **Pedestrian and Bicycle Infrastructure.** Ensure the SEDA is well-served by pedestrian and bicycle infrastructure, including sidewalks, bicycle lanes, bicycle paths and trails, and safe crossing infrastructure pursuant to the Active Transportation Plan.
- c) **Traffic Calming Measures.** Design features and strategies to reduce vehicle speeds and reduce conflicts with pedestrians to encourage more walking. Slower speeds encouraged by traffic calming can also improve safety and increase bicycling. Where appropriate, provide on-street parking, or street trees and landscaping to separate vehicles from pedestrians to improve walkability.

Policy RC-1.3 Transportation Demand Strategies. Transportation Demand Strategies focus on commute trips and provide both incentives for using alternative modes of transportation and disincentives for use of the gas powered single-occupant vehicles. Examples include Transportation Demand Management (TDM) programs, parking strategies, and electric vehicle charging stations. The following strategies should be considered for implementation in the SEDA:

- a) Support the San Joaquin Valley Air Pollution Control District's Rule 9410 by encouraging a Transportation Demand Management (TDM) Plan prior to issuance of certificates of occupancy at employer sites with 100 or more employees. TDM programs include making physical improvements to work sites, such as adding showers and lockers to encourage biking to work, free transit passes, carpool services, and preferential parking.
- b) Consider requiring employers with 50 or more employees to implement TDM programs in the SEDA.
- c) The City of Fresno and the San Joaquin Valley Air District should jointly fund a TDM Coordinator that would assist large employers in Fresno to develop and maintain TDM programs. This position would also support the creation of maintenance of these programs in the SEDA.
- d) Develop a trip reduction parking strategy in the SEDA that would encourage the use of alternative transportation modes. Such a program might include parking pricing at worksites, paid parking structures, and limited parking requirements.
- e) Develop minimum requirements for electric vehicle charging stations to be installed at worksites over a given size (50-100 employees).

Policy RC-1.4 Energy Conservation Strategies. Although new residential development now must meet zero-net-energy requirements, there is still a need to conserve energy to reduce GHG emissions. Energy use in buildings is the second largest generator of GHG emissions after transportation. The following policies will help accomplish needed GHG reductions:

- a) Consider developing an incentive program in SEDA for new buildings that exceed the California Energy Code requirements by 15 percent.
- b) Encourage and reward compliance with voluntary energy conservation certification programs such as LEED®, EnergyStar, or Greenpoint Rating systems.
- c) Promote compliance with State law mandating disclosure of a building's energy data and rating of the previous year to prospective buyers and lessees of the entire building or lenders financing the entire building.
- d) Partner with PG&E [Pacific Gas and Electric Company] or other organization to offer a home energy retrofit program to existing homeowners in the SEDA. Ensure that solar retrofits are made available to existing homeowners.

Policy RC-1.5 Waste Diversion, Recycling, and Energy Recovery. Establishing programs and actions that promote recycling and diversion of waste from landfills can reduce energy consumed in the transport and handling of waste material and can reduce the greenhouse gases that are emitted during the decomposition of organic waste.

The State of California has adopted increasingly stringent mandates for the percentage of solid waste that can be disposed in landfills. In addition, certain landfills have been mandated to install methane capture systems to result in greenhouse gas reductions from these sources. The effects of methane are

powerful—as it is 21 times more effective than carbon dioxide in retaining heat in the atmosphere. Methane can be flared, producing mainly carbon dioxide or used in combustion devices to generate heat or power that can be used for productive purposes displacing the use of fossil fuels. The following policies are recommended in the SEDA to reduce GHGs and conserve energy:

1. Maintain current targets for recycling and re-use of all types of waste material in the City and enhance waste and wastewater management practices to reduce natural resource consumption, including the following measures:
 - a) Continue to require recyclable material collection and storage areas in all residential development.
 - b) Establish recycling collection and storage area standards for commercial and industrial facilities to size the recycling areas according to the anticipated types and amounts of recyclable material generated.
 - c) Provide educational materials to residents on how and what to recycle and how to dispose of hazardous waste.
 - d) Provide recycling canisters and collection in public areas where trash cans are also provided.
 - e) Institute a program to evaluate major waste generators and identify recycling opportunities for their facilities and operations.
 - f) Continue to partner with the California Integrated Waste Management Board on waste diversion and recycling programs and the CalMax (California Materials Exchange) program.
 - g) Evaluate the feasibility of a residential, restaurant and institutional food waste segregation and recycling program, to reduce the amount of organic material sent to landfill and minimize the emissions generated by decomposing organic material.
 - h) Evaluate the feasibility of “carbon footprinting” for the City’s wastewater treatment facilities, biomass and composting operations, solid waste collection and recycling programs.
 - i) Expand yard waste collection to divert compostable waste from landfills.
 - j) Study the feasibility and cost-benefit analysis of a municipal composting program to collect and compost food and yard waste, including institutional food and yard waste, using the resulting compost matter for City park and median maintenance.
2. Create a strategic and operations plan for fulfilling the City Council Resolution committing the City of Fresno to a Zero Waste goal.
3. Continue to pursue opportunities to reduce air pollution by using methane gas from the old City landfill and the City’s wastewater treatment process.

Policy RC-1.6 Municipal Facilities. SEDA will include a range of municipal facilities from streetlights to parks and open spaces to community centers and police and fire facilities will be constructed. It is important to include greenhouse gas reductions and energy conservation at City facilities, over which the City has direct control and can allocate

resources for this purpose. In addition, implementing these measures at City facilities also establishes the City as a leader in GHG reduction and conservation, which is important as it implements these measures on a citywide basis. The following potential citywide actions that can be initiated within the SEDA as opportunity allows:

- a) Improve energy efficiency in City operations.
- b) Exceed Title 24 Energy Efficiency Standards for new City buildings.
- c) Install renewable energy systems on City facilities.
- d) Implement City operated Transportation Demand Management for City employees.
- e) Purchase green vehicles for City fleets.
- f) Enhance reduction, reuse, and recycling efforts at City facilities.
- g) Implement water efficient landscaping in City parks and facilities.
- h) Establish a green purchasing program.

Policy RC-1.7 Urban Forestry Program. Encouraging the integration and protection of new and existing mature trees within our communities can lead to significant reductions in the urban heat island effect and energy required for cooling. As another significant benefit, trees also store harmful carbon as they grow, in a process known as sequestration. As these trees continue to grow, mature and sequester carbon, it is also important for urban forestry projects to consider potential tree emissions that result from the maintenance and ultimate disposition of trees to ensure a net decrease in greenhouse gas emissions occurs.

Maintaining trees, vegetation and plants throughout City parks is important to the success and longevity of these publicly owned spaces. In addition, these areas provide opportunities for new tree planting and replacement of tree species that possess a low potential to store carbon, with tree species that possess higher carbon storage potential. To better understand how to achieve these opportunities, there are many tools that communities can utilize. The Climate Action Reserve, Urban Forest Project Reporting Protocol (CAR 2019) provides criteria for generating greenhouse gas emission offsets with tree planting along with procedures for project monitoring.

Development of the SEDA will present many opportunities for the strategic planting of trees with high carbon storage potential, as noted below:

- a) Develop a tree palette for the SEDA that reinforces its sense of place, reflects native species, and includes tree species with high carbon storage potential.
- b) Meet parks shading targets noted in the Parks Master Plan.
- c) Plant shade trees to delineate corridors and the boundaries of urban areas, and to provide tree canopy for bike lanes, sidewalks, parking lots, and trails.

3.8.4 - Thresholds of Significance

The Lead Agency utilizes the criteria in the CEQA Guidelines Appendix G Environmental Checklist to determine whether greenhouse emissions impacts are significant environmental effects. The project would have a significant impact on the environment if it would:

- 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.

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution toward an impact is cumulatively considerable. As defined in the CEQA Guidelines, Section 15355, "cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects. For future projects, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds, or consistency with a regional GHG Reduction Plan (such as a CAP).

The City of Fresno developed its first GHG Plan in 2014, which includes GHG reduction targets and emissions inventories for the years 2020 and 2035. An updated GHG Plan (the GHG Plan Update) was adopted on September 30, 2021, pursuant to a certified General Plan Program EIR (State Clearinghouse Number 2019050005). The GHG Plan Update was developed by the City to ensure conformity with the mandates of California Supreme Court in the Newhall Ranch case and the State of California's latest GHG regulations. However, in 2024, the Court rejected the City's GHG Plan Update because it did not substantiate its analytical assumption that the State's GHG emission targets were appropriate for Fresno itself. The City's previously adopted GHG Reduction Plan (2014) has not been the subject of a legal challenge and has not been invalidated by the court. As stated, the 2014 GHG Plan includes reduction targets for 2035; however, the full 25 year buildout of the proposed project goes beyond the year 2035 and is anticipated to be fully operational in the year 2050. Therefore, this analysis will evaluate the consistency of the proposed project with ARB's latest 2022 Scoping Plan, including the proposed project's consistency with relevant Scoping Plan measures and the latest RTP/SCS for the region within which the Plan is located. The 2022 Scoping Plan is consistent with the State's longer-term AB 1279 GHG reduction targets of achieving carbon neutrality by 2045 and reducing GHG emissions to 85 percent below 1990 levels by 2045. Therefore, consistency with the 2022 Scoping Plan would also demonstrate consistency with the State's long-term GHG reduction targets encapsulated by AB 1279.

The analysis provides a qualitative assessment of the proposed project's compliance with the applicable plans, policies and regulations for the purposes of reducing GHG emissions to determine whether the proposed project would have a significant impact on the environment relative to GHGs.

3.8.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the project and provides mitigation measures where necessary.

Greenhouse Gas Emissions

Impact GHG-1:	The proposed project could generate direct and indirect greenhouse gas emissions, and these emissions would result in a significant impact on the environment.
Impact GHG-2:	The proposed project could conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Impact Analysis

The proposed project's GHG emissions impact determination is based on 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 GHG emissions. Implementation of the proposed project would contribute to global climate change through direct emissions of GHG from on-site area sources and vehicle trips generated by the proposed project, and indirectly through off-site energy production required for on-site activities, water use, and waste disposal.

Construction

Construction activities associated with future development under the proposed project would generate temporary short-term GHG emissions from heavy-duty construction equipment, worker trips, and material delivery and hauling. On-site activities would consist of the operation of off-road construction equipment as well as on-site truck travel (e.g., haul trucks, dump trucks, and concrete trucks). Off-site sources would include emissions from construction vehicles used for hauling materials and worker vehicle trips. The proposed project's short-term construction-related GHG emissions were estimated using the California Emission Estimator Model (CalEEMod). CalEEMod is a Statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify GHG emissions from land use projects.

Estimated unmitigated GHG emissions associated with construction of the proposed project are summarized in Table 3.8-2 for informational purposes. These emissions include all worker vehicle, vendor vehicle, hauler vehicle, and off-road construction vehicle GHG emissions. For the purposes of this analysis, based on the anticipated buildout year, future development facilitated by the proposed project is assumed to commence construction in 2024 and continue construction over an approximately 25-year buildout schedule. This schedule is an approximation and may change over time. A regularized construction schedule was utilized for modeling purposes for the sake of simplicity.

Table 3.8-2: Construction Greenhouse Gas Emissions

Construction Year	Emissions (MT CO ₂ e)
Construction 2024	155,615
Construction 2025	141,996
Construction 2026	133,150
Construction 2027	129,805
Construction 2028	126,230
Construction 2029	123,855
Construction 2030	121,323
Construction 2031	119,041
Construction 2032	117,479
Construction 2033	114,823
Construction 2034	113,256
Construction 2035	112,307
Construction 2036	112,737
Construction 2037	112,307
Construction 2038	112,307
Construction 2039	111,877
Construction 2040	107,665
Construction 2041	107,665
Construction 2042	107,665
Construction 2043	35,476
Total¹	2,316,578
Notes: MT CO ₂ e = metric tons of carbon dioxide equivalent ¹ Figures may not appear to add exactly due to rounding. Source: CalEEMod Output (see Appendix B).	

Future development under the proposed project would comply with the requirements of the City's General Plan policies and programs related to GHG emissions as well as applicable Valley Air District regulations. Short-term construction GHG emissions are a one-time release of GHGs and are not expected to significantly contribute to global climate change. Additionally, the implementation of the mitigation measures presented in Section 3.3, Air Quality, of this Recirculated Draft PEIR would further reduce the overall annual GHG emissions associated with the proposed project. For instance, MM AIR-1a would require the use of "super compliant" architectural coatings during construction to reduce the generation of VOC emissions, which are also GHGs with low GWP. MM AIR-1b would potentially require the use of electric-powered construction equipment, which could serve to reduce

GHG emissions related to the use of construction equipment. Therefore, future development under the proposed project at construction would not result in significant adverse effects related to GHG emissions. As such, the construction of proposed project would result in a less than significant impact relative to this topic.

Operation

Operational or long-term emissions occur over the life of the project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities. Operational GHG emissions were calculated using CalEEMod and include direct as well as indirect emissions (including those from energy use, solid waste disposal, vegetation planting and/or removal, and water use). It should be noted that CalEEMod does not account for Governor Newsom’s Zero-Emission by 2035 Executive Order (N-79-20), which requires that all new cars and passenger trucks sold in California be zero-emission vehicles by 2035; CalEEMod also does not account for the new ARB rules related to truck electrification (e.g., Advanced Clean Trucks Regulation). This is anticipated to substantially reduce the operational emissions associated with vehicles (i.e., mobile emissions) over time. The operational emissions results provided in Table 3.8-3 are likely an overestimate for mobile emissions, given the State’s ongoing effort to increase use of electric vehicles and trucks. As shown in Table 3.8-3, operation of the proposed project would result in a net increase of GHG emissions by 510,791 MT CO₂e per year compared to the existing conditions in the project area.

Table 3.8-3: Operational GHG Emissions at Project Buildout

Source Category	Emissions with Proposed Project Buildout (MT CO ₂ e)
Area Sources	18,945
Energy Usage	111,179
Transportation	432,219
Solid Waste	25,336
Water and Wastewater	14,233
Annual Total¹	601,912
Existing Land Use Emissions	91,121
NET Total Annual Emissions	510,791
Notes: MT CO ₂ e = metric tons of carbon dioxide equivalent ¹ Figures may not appear to add exactly due to rounding. Source: CalEEMod Output (see Appendix B).	

While implementation of the proposed project would generate an increase in GHG emissions, its guiding principles, design guidelines, and proposed land use designations for the Plan Area would contribute to minimizing emissions on a per capita basis to the extent feasible. Guiding principles and objectives of the proposed project include providing for a balanced mix of uses, boosting the economy, and promoting sustainable development. Additionally, objectives of the proposed project

include encouraging a balanced mix of uses and promoting development that reduces VMT and encourages active transportation. Applicable General Plan policies, which are listed in greater detail below, support the installation of electric infrastructure to support electric vehicles at residential, commercial, and industrial land uses. Future developments consistent with the proposed project would be subject to myriad State regulations that will reduce emissions from project construction and operation, including Title 24 and CALGreen standards and the California Code of Regulations, which the City has adopted, as well as the California Energy Code, the Model Water Efficient Landscaping Ordinance, and State regulations on refrigerants and consumer products. In addition, as detailed in the Regulatory section, GHG emissions from mobile sources will be reduced by State regulations, including the Low Carbon Fuel Standard, the Pavley Standard, the Advanced Clean Car and Zero-Emission Vehicle (ZEV) programs, and the Heavy-Duty Vehicle GHG Emission Reduction Regulation.

Consistency with the 2022 Scoping Plan

ARB's 2022 Scoping Plan (which is the latest version of the Scoping Plan) provides policies that are considered needed to meet the State's mid-term and long-term GHG emissions reduction targets. Specifically, ARB's Final 2022 Scoping Plan identifies that it ". . . lays out the sector-by-sector roadmap for California, the world's fifth largest economy, to achieve carbon neutrality by 2045 or earlier . . ." The 2022 Scoping Plan addresses recent legislation and direction from Governor Newsom by extending and expanding upon earlier Scoping Plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045 and adding carbon neutrality as a science-based guide and touchstone for California's climate work. Under the 2022 Scoping Plan, local government plays a supporting role through its land use authority and control over local transportation infrastructure. The 2022 Scoping Plan includes reductions from implementation of SB 375 that apply to VMT from passenger vehicles. Fresno County targets for SB 375 are a 5 percent per capita reduction by 2020 and a 10 percent per capita reduction by 2035 relative to 2005 levels. (SB 375 is implemented with the Fresno 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. The strategies included in the proposed Fresno SEDA Specific Plan are consistent with the measures included in the RTP/SCS and would serve to support a per capita reduction in VMT in the Plan Area after the implementation of the proposed project.

The proposed project's consistency with the applicable 2022 Scoping Plan policies is discussed in Table 3.8-4 below:

Table 3.8-4: Consistency with the 2022 Scoping Plan

Scoping Plan Measure	Project Consistency
Convert local government fleets to ZEVs [Zero-Emission Vehicles] and provide EV [electric vehicle] charging at public sites.	Not applicable. While this goal is not applicable to private development plans or projects, the proposed project includes a commitment to preference EV parking spaces, and development pursuant to the proposed project will comply with the requirements of the

Scoping Plan Measure	Project Consistency
	California Energy Code (CCR Title 24, Part 6) as it relates to EV charging and parking spaces.
Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).	Not applicable. While this goal is not applicable to private development plans or projects, the proposed project includes a commitment to preference EV parking spaces, and development pursuant to the proposed project will comply with the requirements of the California Energy Code (CCR Title 24, Part 6) as it relates to EV charging and parking spaces.
Reduce or eliminate minimum parking standards.	Consistent. The proposed project includes Objective UF-7 to support a variety of transportation options with parking requirements that encourage non-automotive travel modes within the Fresno Southeast Development Area (SEDA). Policy UF-7.2 provides for parking provisions that cap the quantity of parking a development is required to provide. Additionally, the proposed project calls for a parking study to be completed by the City to establish and adopt parking reduction standards to encourage a variety of transportation options.
Implement Complete Streets policies and investments, consistent with general plan circulation element requirements.	Consistent. Policy RC-1.1 of the proposed project ensures that all streets in the SEDA comply with the City's Complete Streets Policy.
Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.	Consistent. Policy RC-1.1 of the proposed project calls for transit-oriented development that is integrated to design land uses and for development along high-quality transit corridors to supports transit ridership and convenient pedestrian access to bus stops and station stops. Policy RC-1.2: Transportation Facilities Strategies of the proposed project calls for provision of interconnected transportation facilities to encourage use of alternative modes of transportation to reduce vehicle trips, including transit facilities, pedestrian and bicycle infrastructure, and traffic calming measures. Policy RC-1.3: Transportation Demand Strategies of the proposed project calls for strategies to focus on commute trips and provision of incentives for using alternative modes of transportation.
Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking.	Consistent. Policy RC-1.1 of the proposed project calls for transit-oriented development to design land uses and integrate development along high-quality transit corridors that supports transit ridership and convenient pedestrian access to bus stops and station stops. Policy RC-1.2: Transportation Facilities Strategies of the proposed project calls for provision of interconnected transportation facilities to encourage use of alternative modes of transportation to reduce vehicle trips, including transit facilities, pedestrian and bicycle infrastructure, and traffic calming measures. Policy RC-

Scoping Plan Measure	Project Consistency
	1.3: Transportation Demand Strategies of the proposed project calls for strategies to focus on commute trips and provision of incentives for using alternative modes of transportation.
Implement parking pricing or transportation demand management pricing strategies.	Consistent. Policy RC-1.3: Transportation Demand Strategies of the proposed project calls for strategies to focus on commute trips and provision of incentives for using alternative modes of transportation. Trip reduction programs to promote single-trip reduction include parking pricing at worksites, paid parking structures, and limited parking requirements.
Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood).	Consistent. Policy RC-1.1 of the proposed project calls for transit-oriented development to design land uses and integrate development that are integrated along high-quality transit corridors that supports transit ridership and convenient pedestrian access to bus stops and station stops.
Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert “greenfield” land to urban uses (e.g., green belts, strategic conservation easements).	Consistent. The proposed project is one of several growth areas identified in the City’s General Plan and aligns with the General Plan’s policy of balancing growth with infill development. Small farms and community gardens will be integrated into neighborhoods, schools, and town centers and a buffer that includes rural homes, organic farming, and open spaces serves to transition the proposed project and commercial agriculture to the east. In addition, the General Plan includes a number of policies to support agriculture and preserve natural and working lands within the Resource Conservation and Resilience chapter. Furthermore, the proposed project would be required to implement Mitigation Measures related to agricultural resources, as identified in Section 3.2, Agricultural Resources and Forestry Resources of this document.
Adopt all-electric new construction reach codes for residential and commercial uses.	Consistent. Although this goal is not applicable to an individual residential or commercial development project, the proposed project would be consistent with the applicable Energy 24 Building Efficiency Standards, which ensure highly energy-efficient development. Additionally, the proposed project would utilize electricity from PG&E, which has been increasing its overall supply of renewable energy as part of its overall energy portfolio, consistent with the State’s Renewable Portfolio Standard.
Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient	Consistent. Policy RC-1.4: Energy Conservation Strategies of the proposed project considers adopting an incentive program for new buildings that exceed California Energy Code requirements by 15 percent; encouraging and rewarding compliance with voluntary energy conservation programs; promoting compliance

Scoping Plan Measure	Project Consistency
systems (such as Energy Star-rated equipment and equipment controllers).	with State law mandating disclosure of a building's energy data and rating of the previous year to prospective buyers and lessees of the entire building or lenders financing the entire building; and partnering with PG&E or other organizations to offer a home energy retrofit program to existing homeowners and ensuring that solar retrofits are made available to existing homeowners.
Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances.	Consistent. Policy RC-1.4: Energy Conservation Strategies of the proposed project considers adopting an incentive program for new buildings that exceed California Energy Code requirements by 15 percent; encouraging and rewarding compliance with voluntary energy conservation programs; promoting compliance with State law mandating disclosure of a building's energy data and rating of the previous year to prospective buyers and lessees of the entire building or lenders financing the entire building; and partnering with PG&E or other organizations to offer a home energy retrofit program to existing homeowners and ensuring that solar retrofits are made available to existing homeowners.
Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing).	Consistent. Policy EO-3.1: Collaboration with the San Joaquin Valley Clean Energy Organization (SJCVEO) of the proposed project commits to working with the SJCVEO to attract projects and investments to SEDa, including renewable energy projects such as solar and biomass.
Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings).	Not applicable. This measure does not directly relate to private development projects.
Source: California Air Resources Board (ARB). 2012. Appendix D Local Actions. November. Website: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf . Accessed December 20, 2024.	

Overall, the proposed project would not conflict with the 2022 Scoping Plan measures as shown in Table 3.8-4. The proposed project's operational emissions would be reduced as regulations are implemented by the ARB and other State agencies to comply with the statewide GHG reduction targets. Many of these regulations are already identified in the 2022 Scoping Plan. These Statewide actions are anticipated to reduce operational GHG emissions even further below those identified in Table 3.8-2 and Table 3.8-3. For example, the proposed project's transportation emissions would be expected to decline as vehicle efficiency standards are implemented beyond the Advanced Clean Cars II program and the Low Carbon Fuel Standard is strengthened. Furthermore, CalEEMod does not account for Governor Newsom's Zero-Emission by 2035 Executive Order (N79-20) or ARB's

subsequent regulations, which requires that all new cars and passenger trucks sold in California be zero-emission vehicles by 2035. This is anticipated to substantially reduce the operational emissions associated with passenger vehicles (i.e., mobile emissions) further over time. In addition, the proposed project would be developed according to the latest State and federal regulatory requirements those associated with operational building energy efficiency. Therefore, the proposed project would be considered consistent with the 2022 Scoping Plan. Based on this, recognizing the ARB as an authoritative substantial evidence source in evaluating post-2020 GHG impacts, since the proposed project would be consistent with the ARB's 2022 Scoping Plan, buildout of the proposed project would not interfere with the main programs the ARB has identified to support its conclusions that the State is on a trajectory to meet the 2045 GHG target. Overall, the proposed project would not impede the 2022 Scoping Plan and would help the State to progress toward this target.

Consistency with Fresno COG's 2022 RTP/SCS

The Fresno COG's 2022 RTP/SCS includes five goals with corresponding policies for improving mobility and accessibility, connecting communities with accessible transportation options, creating a safe, well-maintained, efficient, and climate-resilient multimodal transportation network, adding to a transportation network that supports a sustainable and vibrant economy, and embracing clean transportation, technology, and innovation. These goals include similar measures to the 2022 Scoping Plan. The proposed project's consistency with the applicable 2022 RTP/SCS strategies is discussed in Table 3.8-5, below.

Table 3.8-5: Consistency with Fresno COG's 2022 RTP/SCS

RTP/SCS Measure	Project Consistency
Goal 1: Improved mobility and accessibility for all.	Consistent. The proposed project would include many project features that improve mobility and accessibility, including providing pedestrian network improvements. The proposed project includes high-quality transit connections, including convenient and frequent transit service to connect the Fresno Southeast Development Area (SEDA) town center to jobs and housing inside the Plan Area and across the region. The proposed project promotes walkable neighborhoods and will provide for nearly all residences to be located within walking distance of a Neighborhood Town Center with an elementary school, recreation areas, community gardens, and small shops. The proposed project will create a trail system and bicycle paths that make traveling without a car safe and convenient. Overall, the proposed project would be well-connected to the rest of the City of Fresno and the region, as well as provide a wide variety of multimodal and sustainable transportation options.
Goal 2: Vibrant communities that are accessible by sustainable transportation options.	Consistent. The proposed project is a specific plan calling for residential, commercial, and mixed-use development which would create a vibrant new community adjacent to existing residential communities

RTP/SCS Measure	Project Consistency
	with pedestrian network, roadway, transit and bicycle improvements. Overall, the proposed project would be well-connected to the rest of the City of Fresno and the region, as well as provide a wide variety of multimodal and sustainable transportation options.
Goal 3: A safe, well-maintained, efficient, and climate-resilient multimodal transportation network.	Consistent. The proposed project is a specific plan calling for residential, commercial, and mixed-use development which would provide a wide variety of multimodal and sustainable transportation options, thereby reducing impacts on climate due to greenhouse gas emissions.
Goal 4: A transportation network that supports a sustainable and vibrant economy.	Consistent. The proposed project would create local jobs as well as provide new shopping options for local and regional residents, thereby supporting a sustainable and vibrant economy.
Goal 5: A region embracing clean transportation, technology, and innovation.	Consistent. The proposed project would provide for preferential EV parking spaces and mixed-use development, would create a modern and vibrant pedestrian trail system and bicycle network, and would provide for transit connections to the proposed project area (including the potential for low- or no emissions bus services). This would ensure that the proposed project would help support the region in embracing clean transportation, technology, and innovation.
Source: Fresno COG. 2022. RTP/SCS.	

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, as 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.

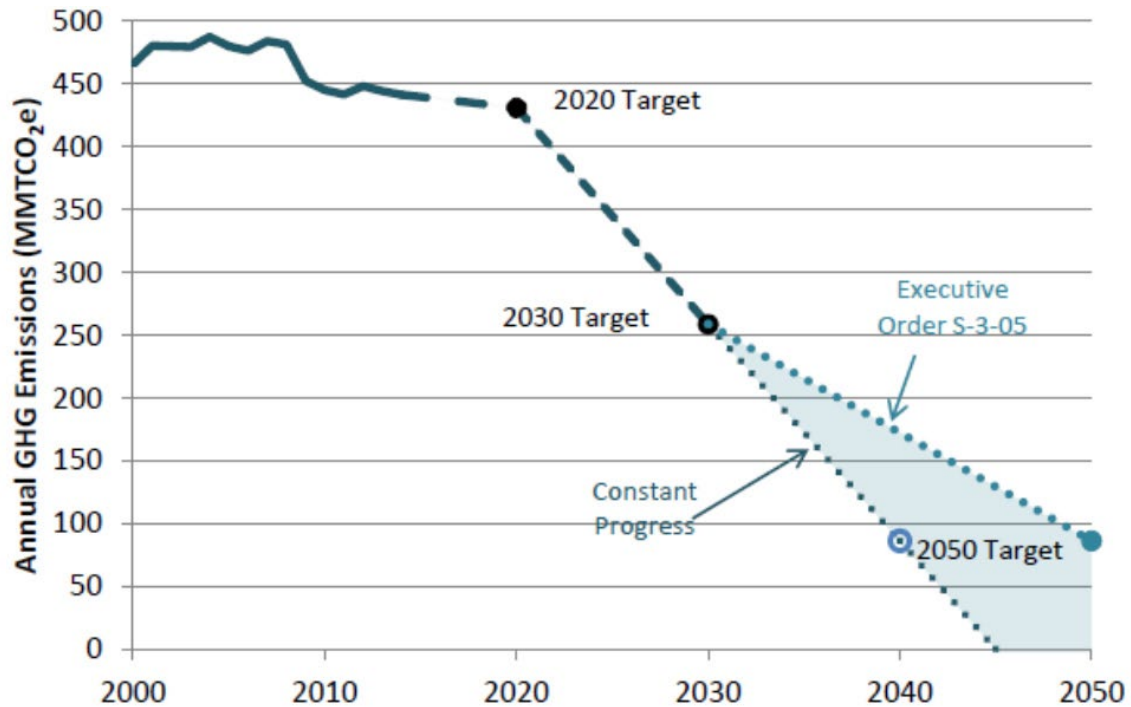
The Executive Order S-3-05 2050 target has not been codified by legislation. Studies have shown that, in order to meet the 2050 target, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the proposed project’s impacts further relative to the 2050 goal is speculative for purposes of CEQA.⁴⁵

⁴⁵ California Air Resources Board (ARB). 2014. First Update to the Climate Change Scoping Plan. Website: <http://ww2.arb.ca.gov/sites/default/files/barcu/board/books/2014/022014/14-2-4pres.pdf>. Accessed June 24, 2022.

The ARB recognizes that AB 32 establishes an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: “These [GHG 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 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 proposed 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 proposed 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 proposed project’s emissions level.

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. The trajectory required to achieve the post-2020 targets is shown in Figure 3.8-3.



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 June 30, 2022.

Figure 3.8-3: 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.⁴⁶

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,

⁴⁶ Brown, Edmund G. Jr. 2015. Press Release: California Establishes Most Ambitious Greenhouse Gas Goal in North America. April 29. Website: <https://www.ca.gov/archive/gov39/2015/04/29/news18938/index.html>. Accessed June 24, 2022.

suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target.⁴⁷

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

The 2030 goal was codified under SB 32 and is now addressed by the 2022 Scoping Plan. 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. The most recent version of the ARB's Scoping Plan, the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), addresses the AB1279 targets and was adopted on December 15, 2022. It provides a detailed sector-by-sector guide to address climate change by cutting greenhouse gas emissions by 85 percent and achieving carbon neutrality in 2045. The elements of the framework proposed to achieve the new targets are as follows:

- **Transportation**
 - Achieve 100 percent Zero-Emission Vehicle (ZEV) sales of light-duty vehicles by 2035 and medium heavy-duty vehicles by 2040.
 - Achieve a 20 percent zero-emission target for the aviation sector.
 - Prioritize and increase funding for clean transportation equity programs.
 - Accelerate the reduction and replacement of fossil fuel production and consumption in California.
 - Increase the stringency and scope of the Low Carbon Fuel Standard (LCFS).
 - Achieve a per capita VMT reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below by 2045.
- **Clean Electricity Grid**
 - Per SB 350, double Statewide energy efficiency savings by 2030.
 - Use long-term planning processes to support grid reliability and expansion of renewable and zero-carbon development.
 - Per SB 100 and 1020, achieve 90 percent, 95 percent, and 100 percent renewable and zero-carbon retail sales by 2035, 2040, and 2045, respectively.
- **Sustainable Manufacturing and Buildings**

⁴⁷ Energy and Environmental Economics. 2015. Pathways to Deep Decarbonization in the United States. Website: <http://ww2.arb.ca.gov/sites/default/files/2020-07/williams.pdf>. Accessed June 24, 2022.

- Maximize air quality benefits using the best available control technologies for stationary sources in communities most in need.
- Implement SB 905.
- Develop a net-zero cement strategy to meet SB 956 targets for the GHG intensity of cement use.
- Leverage energy-efficient and low carbon hydrogen programs.
- Prioritize most vulnerable residents with the majority of funds in the new \$922 million Equitable Building Decarbonization program.
- Achieve 3 million all-electric and electric-ready homes by 2030 and 7 million by 2035 with 6 million heat pumps installed by 2030.
- Adopt a zero-emission standard for new space and water heaters sold in California beginning in 2030.
- Implement biomethane procurement targets for investor-owned utilities as specified in SB 1440.
- Carbon Dioxide Removal and Capture
 - Implement SB 905.
 - Achieve the 85 percent reduction in anthropogenic sources below 1990 levels per AB 1279 by incorporating CCS into sectors and programs beyond transportation.
 - Evaluate and propose the role for CCS in cement decarbonization and as part of hydrogen peroxide pathways.
 - Explore carbon capture application for zero-carbon power for reliability needs per SB 100.
- Short-Lived Climate Pollutants (Non-Combustion Gases)
 - Install anaerobic digesters to maximize air and water quality protection, maximize biomethane capture, and direct biomethane to specific sectors.
 - Increase alternative manure management projects.
 - Expand markets for products made from organic waste.
 - Pursuant to SB 1137, develop leak detection and repair plans for facilities in health protection zones, implement emission detection system standards, and provide public access to emissions data.
 - Convert large HFC emitters to the lowest practical GWP technologies.
- Natural and Working Lands
 - Implement AB 1757 and SB 27.
 - Implement the Climate Smart Strategy.
 - Accelerate the pace and scale of climate smart forest management to at least 2.3 million acres annually by 2025.
 - Accelerate the pace and scale of healthy soils practices to 80,000 acres annually by 2025, conserve at least 8,000 acres of annual crops annually, and increase organic agriculture to 20 percent of all cultivated acres by 2045.
 - Restore 60,000 acres of Delta wetlands annually by 2045.
 - Increase urban forestry investment annually by 200 percent, relative to business as usual.

Consistency with City of Fresno General Plan

The General Plan includes objectives and policies designed to reduce GHG emissions throughout the City. As discussed above, the City also adopted a GHG Plan in 2014 that provides the City's primary strategy for reducing GHG emissions through GHG reduction target years 2020 and 2035. The intent of the GHG Plan is to achieve compliance with State GHG reduction mandates by focusing on feasible actions the City can take to minimize the adverse impacts of growth and development on climate change. The GHG Plan does not create an entirely new, separate strategy; rather, it builds on the policies and implementation measures contained in the City's General Plan. Where needed, the GHG Plan provides more details to clarify and focus action and to ensure implementation. The 2014 GHG Plan has not been the subject of a legal challenge and has not been invalidated by the court. The General Plan contains the following policies related to GHG emissions reduction that are applicable to the proposed project.⁴⁸

Objective

RC-5 In cooperation with other jurisdictions and agencies in the San Joaquin Valley Air Basin, take timely, necessary, and the most cost-effective actions to achieve and maintain reductions in greenhouse gas emissions and all strategies that reduce the causes of climate change in order to limit and prevent the related potential detrimental effects upon public health and welfare of present and future residents of the Fresno community.

Implementing Policies

RC-5-a **Support State Goal to Reduce Statewide GHG Emissions.** As is consistent with State law, strive to meet AB 32 goal to reduce greenhouse gas emissions to 1990 levels by 2020 and strive to meet a reduction of 80 percent below 1990 levels by 2050 as stated in Executive Order S-03-05. As new Statewide GHG reduction targets and dates are set by the State update the City's Greenhouse Gas Reduction Plan to include a comprehensive strategy to achieve consistency with those targets by the dates established.

RC-5-b **Greenhouse Gas Reduction Plan.** As is consistent with State law, prepare and adopt a Greenhouse Gas Reduction Plan as part of the Master Environmental Impact Report to be concurrently approved with the Fresno General Plan in order to achieve compliance with State mandates, assist development by streamlining the approval process, and focus on feasible actions the City can take to minimize the adverse impacts of growth and development on global climate change. The Greenhouse Gas Reduction Plan shall include, but not be limited to:

- A baseline inventory of all known or reasonably discoverable sources of GHGs that currently exist in the City and sources that existed in 1990.
- A projected inventory of the GHGs that can reasonably be expected to be emitted from those sources in the year 2035 with implementation of this General Plan and foreseeable community-wide and municipal operations.

⁴⁸ City of Fresno (City). 2014. Fresno General Plan. December.

- A target for the reduction of emissions from those identified sources.
- A list of feasible GHG reduction measures to meet the reduction target, including energy conservation and “green building” requirements in municipal buildings and private development.
- Periodically update municipal and community-wide GHG emissions inventories to determine the efficacy of adopted measures and to guide future policy formulation needed to achieve and maintain GHG emissions reduction targets.

RC-5-c **GHG Reduction through Design and Operations.** Increase efforts to incorporate requirements for GHG emission reductions in land use entitlement decisions, facility design, and operational measures subject to City regulation through the following measures and strategies:

- a) Promote the expansion of incentive-based programs that involve certification of projects for energy and water efficiency and resiliency. These certification programs and scoring systems may include public agency “Green” and conservation criteria, Energy Star™ certification, CALGreen Tier 1 or Tier 2, Leadership in Energy-Efficient Design (LEED®) certification, etc.
- b) Promote appropriate energy and water conservation standards and facilitate mixed-use projects, new incentives for infill development, and the incorporation of mass transit, bicycle and pedestrian amenities into public and private projects.
- c) Require energy and water audits and upgrades for water conservation, energy efficiency, and mass transit, pedestrian, and bicycle amenities at the time of renovation, change in use, change in occupancy, and change in ownership for major projects meeting review thresholds specified in an implementing ordinance.
- d) Incorporate the City’s “Guidelines for Ponding Basin/Pond Construction and Management to Control Mosquito Breeding” as conditions of approval for any project using an on-site stormwater basin to prevent possible increases in vector-borne illnesses associated with global climate change.
- e) Periodically evaluate the City’s facility maintenance practices to determine whether there are additional opportunities to reduce GHGs through facility cleaning and painting, parks maintenance, road maintenance, and utility system maintenance.
- f) Periodically evaluate standards and mitigation strategies for highly vehicle-dependent land uses and facilities, such as drive-through facilities and auto-oriented development.

RC-5-d **SCS and CAP Conformity Analysis.** Ensure that the City includes analysis of a project’s conformity to an adopted regional Sustainable Community Strategy or Alternative Planning Strategy (APS), an adopted Climate Action Plan (CAP), and any other applicable City and regional greenhouse gas reduction strategies in effect at the time of project review.

- RC-5-e** **Ensure Compliance.** Ensure ongoing compliance with GHG emissions reduction plans and programs by requiring that air quality measures are incorporated into projects' design, conditions of approval, and mitigation measures.
- RC-5-f** **Toolkit.** Provide residents and project applicants with a "toolkit" of generally feasible measures that can be used to reduce GHG emissions, including educational materials on energy-efficient and "climate friendly" products.
- RC-5-g** **Evaluate Impacts with Models.** Continue to use computer models such as those used by SJVAPCD [Valley Air District] to evaluate greenhouse gas impacts of plans and projects that require such review.

As detailed in the Regulatory Framework section, the proposed Specific Plan includes numerous policies related to reducing GHG emissions associated with development in the Plan Area. Policy RC-1.1, Land Use Strategies, would support compact, mixed-use development that is pedestrian-oriented and located in high-quality transit corridors. Policy RC-1.2 and Policy RC-1.3 further outline the Fresno SEDA Specific Plan focus on transit oriented development, as well as TDM strategies. Several policies promote exceeding Title 24 requirements through encouraging compliance with voluntary energy conservation certification programs, such as LEED® and EnergyStar, and Policy RC-1.6 states that City buildings in the Plan Area will exceed Title 24 Energy Efficiency Standards, along with purchasing green vehicles for City fleets, and supporting water conservation and waste reduction efforts throughout the Plan Area. These proposed Specific Plan policies are consistent with, and support the goals and objectives of, the City's General Plan and GHG Plan related to GHG emissions reductions. Therefore, the proposed project is consistent with the goals and objectives of the General Plan.

Conclusion

In conclusion, the proposed project would be consistent with relevant plans, policies, and regulations associated with GHGs, notably the most recent version of the ARB's Scoping Plan (the 2022 Scoping Plan), and the Fresno 2022 RTP/SCS. This would ensure that the proposed project would be consistent with, and would not impair, the State's carbon neutrality standard by year 2045 as established under AB 1279. The State is making progress toward reducing GHG emissions in key sectors such as transportation, industry, and electricity. Since the proposed project would be consistent with State GHG Plans, it would not impede the State's goals of reducing GHG emissions 40 percent below 1990 levels by 2030 and of achieving carbon neutrality by 2045. The proposed project would make a reasonable fair share contribution to the State's GHG reduction goals by implementing a wide array of project features that would substantially reduce GHG emissions, and, therefore, the proposed project's GHG emissions would be considered to have a less than significant impact with respect to Impacts GHG-1 and GHG-2.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

3.8.6 - Cumulative Impacts

The geographic scope of the cumulative impact analysis for energy use is the Plan Area and portions of the City of Fresno, City of Clovis, and unincorporated Fresno County adjacent to the Plan Area. This analysis evaluates whether impacts of the proposed project, together with impacts of cumulative development, would result in a cumulatively significant impact with respect to GHG emissions. This analysis then considers whether incremental contribution of the impacts associated with implementation of the proposed project would be significant. Both conditions must apply for cumulative effects to rise to the level of significance. Based on this analysis, there is a potentially significant cumulative effect resulting from the proposed project.

As previously discussed, no single land use project could generate enough GHG emissions to noticeably change the global average temperature. Cumulative GHG emissions, however, contribute to global climate change and its significant adverse environmental impacts.

The proposed project would be consistent with relevant plans, policies, and regulations associated with GHGs, notably the most recent version 2022 version of ARB's Scoping Plan, as well as the SICOG's 2022 RTP/SCS and the City's General Plan. The proposed project would not impede upon the State's ability to reach mandated GHG reduction targets in the future and will support State-level efforts to reduce GHG emissions. Therefore, development of the proposed project would have a less than significant cumulative impact relative to this environmental topic. In addition, the implementation of MM AIR-1b, MM AIR-1c, and MM AIR-1d would serve to further reduce GHG emissions along with criteria air pollutants and toxic air contaminants. Accordingly, impacts related to GHG emissions would result in a less than cumulatively considerable contribution.

Level of Cumulative Significance Before Mitigation

Less than significant impact.

Cumulative Mitigation Measures

None required.

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3.9 - Hazards and Hazardous Materials

3.9.1 - Introduction

This section describes the existing hazards and hazardous materials setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based, in part, on the Fresno General Plan (General Plan) and the Fresno Southeast Development Area (SEDA) Specific Plan, as well as research on various hazardous materials websites.

As further discussed in Chapter 1, Introduction, nine comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to hazards and hazardous materials were received:

- Requests that the Draft PEIR acknowledge the potential for historic or future activities to result in the release of hazardous waste/substances.
- Recommends that all future development under the proposed project collect soil samples for lead analysis prior to performing any intrusive activities.
- Recommends that all future development under the proposed project conduct surveys for the presence of lead-based paints (LBP), mercury, asbestos-containing materials (ACMs), and polychlorinated biphenyl caulk before demolishing any buildings.
- Requests that Draft PEIR require any future development under the proposed project that requires the importation of soil to backfill any excavated areas to conduct the proper sampling to ensure that the imported soil is free of contamination.
- Requests that the Draft PEIR require any future development under the proposed project that is developed on land containing agricultural uses, weed abatement activities, or related activities to conduct a proper investigation for organochlorinated pesticides.
- Recommends that the current and former agricultural lands in the Plan Area be evaluated in accordance with the California Department of Toxic Substances Control (DTSC) 2008 Interim Guidance for Sampling Agricultural Properties, Third Addition.
- States that any future development under the SEDA Specific Plan that would use or handle hazardous materials would be required to meet the requirements set forth in the California Health and Safety Code, Division 20, Chapter 6.95, and the California Code of Regulations Title 22, Division 4.5. Any businesses handling hazardous waste must submit a Hazardous Materials Business Plan pursuant to the Health and Safety Code, Division 20, Chapter 6.95, Section 25507.
- States that an underground storage tank (UST) Removal Permit from the Fresno County Department of Public Health, Environmental Health Division must be obtained if any petroleum USTs are discovered during construction.
- States that all water wells and septic systems identified at a future development site that are not intended to be used should be properly removed with a licensed contractor.

3.9.2 - Environmental Setting

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 in an attempt to mitigate its impact on people, structures, or the environment. Emergency situations can range from natural disasters to hazardous materials problems and transportation incidents.

Hazards 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 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 may cause a 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, 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, which 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 handled 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 Sites

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

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 May 17, 2022.

² California State Water Resources Control Board (State Water Board). “Cortese” List of Leaking Underground Storage Tank Sites by County (San Francisco County). Website: https://geotracker.waterboards.ca.gov/sites_by_county. Accessed May 17, 2022

- 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
- 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

Envirostor

The EnviroStor database, maintained by the DTSC, tracks cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities, sites with known contamination, and sites where there may be reasons to investigate further. The database includes federal Superfund sites (from the National Priorities List); State response sites, voluntary cleanup sites; school investigation and cleanup sites; corrective action sites; and tiered California permit sites. It also includes sites that are being investigated for contamination where contamination has not been confirmed. According to an EnviroStor search performed on May 17, 2022, a total of three sites are located within the Plan Area. See Table 3.9-1 for more information.

Table 3.9-1: Facilities Listed on the DTSC EnviroStor Database

Site No.	Site Name; Address	Site Description; Size	Contaminants of Concern	Cleanup Status
1	Fourth Educational Center Site; 2660 Leonard Avenue	Former agricultural site with residences and aboveground storage tank; 160.5 acres.	Arsenic, pesticides	Inactive—Action Required as of 5/18/09.
2	Clovis USD—Proposed K-6 School; SE Intersection of Temperance and Clinton Avenues	Former agricultural site that is currently fallow. Formerly contained farm residence/buildings that have been removed; 20 acres.	Metals, pesticides, PCBs	No further action as of 4/17/2014.
3	T H Agriculture and Nutrition, LLC; 7183 East McKinley Avenue	Formerly a plant and warehouse for agricultural chemicals.	Pesticides; VOCs	Certified by DTSC/in Operation and Maintenance Agreement as of 1/12/2006. Removed from the National Priorities List of Superfund and hazardous waste sites but subject to continued monitoring. Land use restrictions apply.

³ California Environmental Protection Agency (Cal/EPA). 2020. Site Portal. Website: <https://siteportal.calepa.ca.gov/nsite/map/results>. Accessed May 17, 2022.

⁴ Ibid.

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 May 17, 2022.

Site No.	Site Name; Address	Site Description; Size	Contaminants of Concern	Cleanup Status
<p>Notes: DTSC = California Department of Toxic Substances Control PCB = polychlorinated biphenyl VOC = volatile organic compound Source: California Department of Toxic Substances Control (DTSC) EnviroStor. 2022.</p>				

Geotracker

GeoTracker is the State Water Board data management system for sites that impact, or have potential to impact, water quality in California, with emphasis on groundwater. GeoTracker contains records for sites that require cleanup, such as LUST Sites, Cleanup Program Sites, and Department of Defense Sites. GeoTracker also contains records for various unregulated projects, as well as permitted facilities including operating Permitted USTs, Irrigated Lands, Oil and Gas production, and Land Disposal Sites (landfills). According to a GeoTracker search performed on May 17, 2022, a total of two open sites are located within the Plan Area. See Table 3.9-2 for more information.

Table 3.9-2: Geotracker Sites in the Plan Area

Site No.	Site Name; Address	Site Description; Size	Contaminants of Concern	Cleanup Status
1	Pipco Ranch; 5414 North East Fresno	LUST Cleanup Site	Gasoline	Completed—Case Closed as of 7/1/07.
2	Baggie Farms; 6731 North Avenue East	LUST Cleanup Site	Diesel	Completed—Case Closed as of 10/15/1991.
3	Tri-Boro Fruit Co. Inc.; 2500 South Fowler Avenue	LUST Cleanup Site	Gasoline	Completed—Case Closed as of 8/29/1996.
4	Tri-Boro Fruit Co. Inc.	LUST Cleanup Site	Diesel	Completed—Case Closed as of 1/18/1995.
5	Demirjian, Mike; 5408 East Jensen Avenue	Cleanup Program Site	Petroleum, fuels, oils	Open—Site Assessment as of 11/1/1990.
6	Sunnyside Sierra; 5895 East Jensen Avenue	LUST Cleanup Site	Gasoline	Completed—Case Closed as of 1/7/1997.
7	Bonner Packing; 568 South Temperance Avenue	LUST Cleanup Site	Gasoline	Completed—Case Closed as of 9/13/1988.
8	Narlian Residence; 7910 Kings Canyon East	LUST Cleanup Site	Gasoline	Completed—Case Closed as of 9/15/1995.
9	Than; 7183 East McKinley Avenue	Cleanup Program Site	Pesticides, Herbicides, VOCs	Completed—Case Closed as of 5/12/2010. DTSC continues to provide regulatory oversight for maintenance of site cap and for submittal of annual groundwater monitoring reports.

Site No.	Site Name; Address	Site Description; Size	Contaminants of Concern	Cleanup Status
10	Private Residence	LUST Cleanup Site	Gasoline	Open—Site Assessment as of 11/15/2011.
11	Private Residence; 9337 McKinley Avenue	LUST Cleanup Site	Gasoline	Completed—Case Closed as of 9/18/1996.
Notes: VOC = volatile organic compound DTSC = California Department of Toxic Substances Control LUST = Leaking Underground Storage Tank Source: California State Water Resources Control Board (State Water Board). Geotracker. 2022.				

Summary

As outlined above, the Plan Area contains various contaminated sites that have released hazardous materials and required remediation and involvement from local, State, and federal agencies. A search of the EnviroStor and GeoTracker databases conducted on May 17, 2022, in the Plan Area found the sites listed in Tables 3.9-1 and 3.9-2. The Plan Area has several cases of leaking underground storage tanks, but cleanup is complete for nearly all of these sites.

Hazardous Materials Incidents Emergency Response

The unauthorized releases of hazardous materials into the environment could create many environmental impacts including impacts to properties, natural environment, and human health. The significance of these impacts could vary according to the location and quantity of the substance released. Hazardous releases can occur in areas that treat, store, transport and use hazardous materials. In the event of an unauthorized release of hazardous materials/substances, emergency response measures must be implemented to ensure the protection of human and natural environmental health from risk.

The Plan Area contains agricultural, rural residential, as well as institutional and public facilities uses. Agriculture is the primary land use in the Plan Area and is a major industry in the City. The potential for hazardous materials incidents are heightened. Accidental releases of pesticides, fertilizers, and other agricultural chemical may be harmful to the public's health, safety, and the environment. In addition, the Plan Area contains State Route (SR) 180, which is a major State transportation route. This transportation route as well as the agricultural uses listed above, transports large quantities of hazardous materials through and into the Plan Area each year. Because of the rural nature of the Plan Area and its location along a route that regularly transports hazardous materials through and around the Plan Area, the area faces risks associated with the potential for hazardous materials emergencies (accidental releases). The City of Fresno Fire Department recognizes the potential for a large chemical release to occur which could expose thousands of people to hazardous or toxic vapors.

In addition, prior to the banning of lead additives in vehicle fuel in 1992, tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the State. ADL-contaminated soils still exist along

roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities.

The City of Fresno Fire Department Hazardous Materials Response Team (HMRT) has embraced an all-hazards approach to emergency response to ensure that the Planning Area receives effective protection from the risk of hazardous materials releases.

Emergency Response

In addition to emergency response to hazardous materials incidents, both the City of Fresno and the County of Fresno implement programs to facilitate emergency preparedness for other types of incidents within the Plan Area. Specifically, the City of Fresno has an Emergency Operations Plan that describes what the City's actions will be during a response to an emergency. This plan also describes the role of the Emergency Operations Center (EOC) and the coordination that occurs between the EOC, City Departments, and other response agencies. The plan establishes a requirement for the emergency management organization to mitigate any significant emergency disaster affecting the City. The plan also identifies the policies, responsibilities, and procedures required to protect the health and safety of City communities, public and private property, and the environmental effects of natural or technological disasters. In addition, the plan establishes the operation concepts and procedures associated within initial response operations (field response) to emergencies, the extended response operations (City of Fresno EOC Activities), and the recovery process. Furthermore, the plan complies with the State of California Emergency Operations Plan "Cross Walk" checklist for determining whether an emergency plan has addressed critical elements of California's Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS).

The County of Fresno has a Multi-Jurisdictional Hazard Mitigation Plan, which is a plan that aims to reduce or eliminate long-term risk to people or property natural from hazards. The plan, which covers all territory within Fresno County's jurisdictional boundaries, was adopted by the City of Fresno in 2009, and an update was adopted by the City of Fresno in 2020. The plan was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 so that Fresno County and the jurisdictions within it would be eligible for the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Assistance Grants.

Existing Schools

Presently, the Lone Star Elementary School, located in the southern portion of the Plan Area, is the only school in the Plan Area. However, Clovis Unified School District is constructing an educational center for middle and high school students in the northern portion of the Plan Area on a site along the Clinton Avenue alignment between Leonard and Highland Avenues, with phased opening expected in 2025.

Airport Hazards

There are three airports located within the City of Fresno: Fresno Yosemite International Airport, Fresno Chandler Executive Airport, and Sierra Sky Park. None of the airports are located in the Plan Area.

Fresno Yosemite International Airport is located approximately 2 miles from the Plan Area, along East Clinton Way. The airport is a joint use civilian/military airport. It is used by commercial air carriers, air cargo operators, charter operators, the State of California, general aviation, and the United States Military. The California Air National Guard occupies a 58-acre area adjacent to East McKinley Avenue in the southeast portion of the airport. A helicopter repair and maintenance unit of the Army National Guard, the California Department of Forestry and Fire Protection (CAL FIRE), and a number of corporate aviation businesses occupy facilities north of the runways. About 250 general aviation aircraft are based at Fresno Yosemite International Airport and two Fixed Base Operators (FBOs) offer a wide range of aeronautical services.

According to the Fresno Yosemite International Airport Safety Compatibility Zones Map,⁶ a small portion of the Plan Area is located within the 60 decibel (dB) Community Noise Equivalent Level (CNEL) contour.⁷ A larger portion of the Plan Area is located within the Traffic Pattern Zone.⁸

Wildland Fire Hazard

CAL FIRE designates the Plan Area as a Local Responsibility Area (LRA).⁹ There are no wildlands located within or adjacent to the Plan Area.¹⁰

The Plan Area is located within the Central Valley and is relatively flat. The majority of the Plan Area is located within agricultural lands. The Plan Area is surrounded by mostly agricultural properties and rural residential uses to the north, west, and south. The Sierra Nevada foothills to the north and east of the City provide the nearest areas where large expanses of undeveloped properties occur. Because of the topography and the distance between the developed portions of the City and undeveloped areas, the primary fire hazard concern within the City consists of the potential for structure fires in developed areas.

3.9.3 - Regulatory Framework

Federal

Toxic Substances Control Act

Established in 1976 and amended on December 31, 2002, the Toxic Substances Control Act (TSCA) (15 United States Code [USC] Section 2601-2692) grants the EPA power to require proper reporting, recordkeeping, and testing requirements related to chemical substances and/or mixtures. Specifically, the TSCA addresses the production, importation, use, and disposal of specific chemicals, including PCBs, asbestos, radon, and LBP. The TSCA establishes the EPA's authority to require the

⁶ Fresno Council of Government (COG). 2018. Fresno County Airport Land Use Compatibility Plan. Website: <https://ceqanet.opr.ca.gov/2018081025/2>. Accessed November 29, 2022.

⁷ Fresno Council of Governments (COG). Airport Land Use Compatibility Plan. Exhibit D2 Future Noise Contours. Fresno Yosemite International Airport. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/04/ALUCP-Fresno-Yosemite-International-Airport.pdf>. Accessed May 17, 2022.

⁸ Fresno Council of Governments (COG). Airport Land Use Compatibility Plan. Exhibit D1- Fresno Yosemite Intl. – Airport Influence Area and Safety Zones. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/04/ALUCP-Fresno-Yosemite-International-Airport.pdf>. Accessed May 17, 2022.

⁹ California Department of Forestry and Fire Protection (CAL FIRE). 2007. Draft Fire Hazard Severity Zones in LRA. Fresno County. Website: https://osfm.fire.ca.gov/media/6673/fhszl06_1_map10.pdf. Accessed May 17, 2022.

¹⁰ City of Fresno. 2018. Fresno County Multi-Hazard Mitigation Plan. Figure 4.52 Fresno County's Wildfire Severity Zones. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/12/FresnoCountyHMPFinal.pdf>. Accessed March 21, 2023.

notification of the use of chemicals, require testing, maintain a TSCA inventory, and require those importing chemicals under Sections 12(b) and 13 to comply with certification and/or other reporting requirements. This federal legislation also phased out the use of ACMs in new building materials and sets requirements for the use, handling, and disposal of ACMs. Disposal standards for LBP wastes are also detailed in the TSCA.

Occupational Health and Safety Act

The Occupational Safety and Health Administration (OSHA) of the United States 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 particular 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 ACMs. In California, these requirements are implemented by the California Division of Occupational Safety and Health (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 ACMs 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 ACMs 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, place-carding, 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.” 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 Fresno 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.

Federal Air Regulations, Part 77

The Federal Aviation Administration (FAA) is charged with the review of construction activities that occur in the vicinity of airports. Its role in reviewing these activities is to ensure that new structures do not result in a hazard to navigation. The regulations in the Federal Air Regulations (14 CFR, Part 77) are designed to ensure that no obstructions in navigable air space are allowed to exist that would endanger the public. Proposed structures are also evaluated against Terminal En Route Procedures, which ensure that a structure does not adversely impact flight procedures. Tall structures, including buildings, construction cranes, and cell towers in the vicinity of an airport can be hazardous to the navigation of airplanes. Federal Air Regulations Part 77 identifies the maximum height at which a structure would be considered an obstacle at any given point around an airport. The extent of the off-airport coverage that needs to be evaluated for tall structure impacts can extend miles from an airport facility. In addition, Federal Air Regulations Part 77 establishes standards for determining whether objects constructed near airports will be considered obstructions in navigable airspace, sets forth notice requirements of certain types of proposed construction or alterations, and provides for aeronautical studies to determine the potential impacts of a structure on the flight of aircraft through navigable airspace.

Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 USC 136 *et seq.*) was originally passed in 1947. It has been amended several times, most extensively in 1972 and in 1996 by the Food Quality Protection Act of 1996, and in 2012 by the Pesticide Registration Improvement Extension Act. The purpose of FIFRA is to establish federal jurisdiction over the distribution, sale, and use of pesticides. It also gives EPA the authority to study the effects of pesticide use. Other key provisions of FIFRA require pesticide applicators to pass a licensing examination for status as “qualified applicators,” create a review and registration process for new pesticide products and ensure thorough and understandable labeling that includes instructions for use.

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 would reduce potential resulting impacts. The law specifies that generators 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 a number of 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 (HSC § 25141) 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.
- (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 (HMBPs) (HSC § 25501, *et seq.*).
- State Uniform Fire Code (UFC) requirements (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)).
- Hazardous waste generator requirements (HSC § 25100, *et seq.*).

The Fresno County Health Department's CUPA is responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that:

- Require Hazardous Materials Business Plans;
- Require California Accidental Release Prevention plans or Federal Risk Management Plans;
- Operate Underground Storage Tanks;
- Operate Aboveground Storage Tanks;
- Generate Hazardous Waste(s);
- Have On-site Treatment of Hazardous Waste(s)/Tiered Permits.

Compliance is achieved through routine inspections of all regulated facilities, and investigation of citizen-based complaints and inquiries regarding improper handling and/or disposal of hazardous materials and/or hazardous wastes. Hazardous waste source reduction is a primary goal of the CUPA. Additionally, the agency provides oversight for the remediation of contaminated sites.

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 (formerly known as material safety data sheets) be available for employee information and training programs. Cal/OSHA standards are generally more stringent than federal regulations. Construction workers and operational employees at the project site would be subject to these requirements.

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 Bay Area Air Quality Management District (BAAQMD) oversees the removal of regulated ACMs (see “Asbestos Demolition, Renovation, and Manufacturing Rule” below).

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 with respect to 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 California Code of Regulations [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. Emergency response team members respond 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 California Department of Transportation (Caltrans).

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. 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. 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.

California Building Code

The State of California provided a minimum standard for building design through the 2016 California Building Standards Code (CBC), which is located in Part 2 of Title 24 of the California Code of Regulations. The 2016 CBC is based on the 2015 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 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 arrestors¹¹ 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); 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).

¹¹ 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.

Local

Fresno General Plan

The General Plan outlines a long-range vision for the physical development of the City that reflects the community's vision to preserve the desirable qualities of the existing community while encouraging the aspirations of the community. The General Plan includes the following objectives and policies related to hazards and hazardous materials:

Public Utilities and Services Element

- Objective PU-2** Ensure that the Fire Department's staffing and equipment resources are sufficient to meet all fire and emergency service level objectives and are provided in an efficient and cost effective manner.
- Policy PU-2-a** **Unify Fire Protection.** Pursue long-range transfer of fire protection service agreements with adjacent fire districts that, in concert with existing automatic aid agreements, will lead to the eventual unification of fire protection services in the greater Fresno area.
- Policy PU-2-b** **Maintain Ability.** Strive to continually maintain the Fire Department's ability to provide staffing and equipment resources to effectively prevent and mitigate emergencies in existing and new high-rise buildings and in other high-density residential and commercial development throughout the City.
- Policy PU-2-c** **Rescue Standards.** Develop appropriate standards, as necessary, for rescue operations, including, but not limited to, confined space, high angle, swift water rescues, and the unique challenges of a high speed train corridor.
- Policy PU-2-d** **Station Siting.** Use the General Plan, community plans, Specific Plans, neighborhood plans, and Concept Plans, the City's Geographic Information Systems (GIS) database, and a fire station location program to achieve optimum siting of future fire stations.
- Policy PU-2-e** **Service Standards.** Strive to achieve a community wide risk management plan that include the following service level objectives 90 percent of the time:
- **First Unit on Scene**—First fire unit arriving with minimum of three firefighters within 5 minutes and 20 seconds from the time the unit was alerted to the emergency incident.
 - **Effective Response Force**—Provide sufficient number of firefighters on the scene of an emergency within 9 minutes and 20 seconds from the time of unit alert to arrival. The effective response force is measured as 15 firefighters for low risk fire incidents and 21 firefighters for high risk fire incidents and is the number of personnel necessary to complete specific tasks required to contain and control fire minimizing loss of life and property.

- Objective PU-3** Enhance the level of fire protection to meet the increasing demand for services from an increasing population.
- Policy PU-3-a** **Fire Prevention Inspections.** Develop strategies to enable the performance of annual fire and life safety inspection of all industrial, commercial, institutional, and multi-family residential buildings, in accordance with nationally recognized standards for the level of service necessary for a large Metropolitan Area, including a self-certification program.
- Policy PU-3-b** **Reduction Strategies.** Develop community risk reduction strategies that target high service demand areas, vulnerable populations (e.g., young children, older adults, non-English speaking residents, persons with disabilities, etc.), and high life hazard occupancies.
- Policy PU-3-d** **Review All Development Applications.** Continue Fire Department review of development applications, provide comments and recommend conditions of approval that will ensure adequate on-site and off-site fire protection systems and features are provided.
- Policy PU-3-e** **Building Codes.** Adopt and enforce amendments to construction and fire codes, as determined appropriate, to systematically reduce the level of risk to life and property from fire, commensurate with the City's fire suppression capabilities.
- Policy PU-3-f** **Adequate Infrastructure.** Continue to pursue the provision of adequate water supplies, hydrants, and appropriate property access to allow for adequate fire suppression throughout the City.
- Policy PU-3-g** **Cost Recovery.** Continue to evaluate appropriate codes, policies, and methods to generate fees or other sources of revenue to offset the ongoing personnel and maintenance costs of providing fire prevention and response services.

Noise and Safety Element

- Objective NS-4** Minimize the risk of loss of life, injury, serious illness, and damage to property resulting from the use, transport, treatment, and disposal of hazardous materials and hazardous wastes.
- Policy NS-4-a** **Processing and Storage.** Require safe processing and storage of hazardous materials, consistent with the California Building Standards Code and the Uniform Fire Code, as adopted by the City.
- Policy NS-4-b** **Coordination.** Maintain a close liaison with the Fresno County Environmental Health Department, Cal/EPA Division of Toxics, and the State Office of Emergency Services to assist in developing and maintaining hazardous material business plans, inventory statements, risk management prevention plans, and contingency/emergency response action plans.

- Policy NS-4-c** **Soil and Groundwater Contamination Reports.** Require an investigation of potential soil or groundwater contamination whenever justified by past site uses. Require appropriate mitigation as a condition of project approval in the event soil or groundwater contamination is identified or could be encountered during site development.
- Policy NS-4-d** **Site Identification.** Continue to aid federal, State, and County agencies in the identification and mapping of waste disposal sites (including abandoned waste sites), and to assist in the survey of the kinds, amounts, and locations of hazardous wastes.
- Policy NS-4-e** **Compliance with County Program.** Require that the production, use, storage, disposal, and transport of hazardous materials conform to the standards and procedures established by the County Division of Environmental Health. Require compliance with the County’s Hazardous Waste Generator Program, including the submittal and implementation of a Hazardous Materials Business Plan, when applicable.
- Policy NS-4-f** **Hazardous Materials Facilities.** Require facilities that handle hazardous materials or hazardous wastes to be designed, constructed, and operated in accordance with applicable hazardous materials and waste management laws and regulations.
- Policy NS-4-g** **Hazmat Response.** Include policies and procedures appropriate to hazardous materials in the City’s disaster and emergency response preparedness and planning, coordinating with implementation of Fresno County’s Hazardous Materials Incident Response Plan.
- Policy NS-4-h** **Household Collection.** Continue to support and assist with Fresno County’s special household hazardous waste collection activities, to reduce the amount of this material being improperly discarded.
- Policy NS-4-i** **Public Information.** Continue to assist in providing information to the public on hazardous materials.
- Objective NS-5** Protect the safety, health, and welfare of persons and property on the ground and in aircraft by minimizing exposure to airport-related hazards.
- Policy NS-5-a** **Land Use and Height.** Incorporate and enforce all applicable Airport Land Use Compatibility Plans (ALUCPs) through land use designations, zoning, and development standards to support the continued viability and flight operations of Fresno’s airports and to protect public safety, health, and general welfare.
- Limit land uses in airport safety zones to those uses listed in the applicable ALUCPs as compatible uses, and regulate compatibility in terms of location, height, and noise.

- Ensure that development, including public infrastructure projects, within the airport approach and departure zones complies with Part 77 of the Federal Aviation Administration Regulations (Objects Affecting Navigable Airspace), particularly in terms of height.

Policy NS-5-b **Airport Safety Hazards.** Ensure that new development, including public infrastructure projects, does not create safety hazards such as glare from direct or reflective sources, smoke, electrical interference, hazardous chemicals, fuel storage, or from wildlife, in violation of adopted safety standards.

Policy NS-5-c **Aviation Easements.** Employ aviation easements in order to secure and protect airspace required for unimpeded operation of publicly owned airports.

Policy NS-5-d **Disclosure.** As a condition of approval for residential development projects, require sellers to prepare and provide State Department of Real Estate Disclosure statements to property buyers notifying of noise and safety issues related to airport operations.

Policy NS-5-e **Planned Expansion.** Allow for the orderly expansion and improvement of publicly owned airports, while minimizing adverse environmental impacts associated with these facilities.

- Periodically update airport facility master plans in accordance with FAA regulations.
- Require land use within the boundaries of the Fresno-Yosemite International Airport and Chandler Downtown Airport to conform to designations and policies specified in adopted City of Fresno compatible land use plans.
- Provide local jurisdictions surrounding the City's publicly owned airports with specific guidelines for effectively dealing with the presence and operation of these airports.

Objective NS-6 Foster an efficient and coordinated response to emergencies and natural disasters.

Policy NS-6-a **County Multi-Jurisdiction Hazard Mitigation Plan.** Adopt and implement the Fresno County Multi-Jurisdiction Hazard Mitigation Plan and City of Fresno Local Hazard Mitigation Plan Annex.

Policy NS-6-b **Disaster Response Coordination.** Maintain coordination with other local, State, and federal agencies to provide coordinated disaster response.

Policy NS-6-c **Emergency Operations Plan.** Update the City's Emergency Operations Plan periodically, using a whole community approach which integrates considerations for People with access and functional needs in all aspects of planning.

- Policy NS-6-d** **Evacuation Planning.** Maintain an emergency evacuation plan in consultation with the Police and Fire Departments and other emergency service providers, which shows potential evacuation routes and a list of emergency shelters to be used in case of catastrophic emergencies.
- Policy NS-6-e** **Critical Use Facilities.** Ensure critical use facilities (e.g., City Hall, police and fire stations, schools, hospitals, public assembly facilities, transportation services) and other structures that are important to protecting health and safety in the community remain operational during an emergency.
- Site and design these facilities to minimize their exposure and susceptibility to flooding, seismic and geological effects, fire, and explosions.
 - Work with the owners and operators of critical use facilities to ensure they can provide alternate sources of electricity, water, and sewerage in the event that regular utilities are interrupted in a disaster.
- Policy NS-6-f** **Emergency Vehicle Access.** Require adequate access for emergency vehicles in all new development, including adequate widths, turning radii, hard standing areas, and vertical clearance.
- Policy NS-6-g** **Emergency Preparedness Public Awareness Programs.** Continue to conduct programs to inform the general public, including people with access and functional needs, of the City's emergency preparedness and disaster response procedures.

Fresno Southeast Development Area Specific Plan

The Fresno SEDA Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to hazards and hazardous materials:

Urban Form

- Objective UF-5** Provide a well-balanced transportation network accessible to all users.
- Policy UF-5.1** **Circulation Plan and Street Standards.** Implement a circulation plan which provides a variety of transportation options necessary to meet the needs of residents and employees within the SEDA.
- In order to promote connectivity throughout the Plan Area, all SEDA street rights-of-way shall be publicly accessible and shall not include gates or access controls, except where permitted through special review by the City of Fresno.
- Policy UF-5.6** **Performance Standards and Evaluation.** The following criteria shall guide the evaluation of facilities within the SEDA.

- **Transit:** Transit will be provided as demand warrants. Upon Plan buildout or when warranted, 10-minute peak-period headways will be provided along the BRT [Bus Rapid Transit] corridor (e.g., Kings Canyon), and 15-minute peak-period headways shall be provided for high-priority transit routes (e.g., De Wolf, Clovis).

In addition, all other transit routes in the planning area shall be operated at 30-minute headways upon Plan completion. Extended hour or late-night service shall be provided at 60-minute headways.

- Bus stop locations are generally placed at ¼ mile spacing. Bus stop placement will be prioritized at:
 1. Schools and medical facilities.
 2. Libraries, parks, senior centers, and recreation facilities.
 3. Concentrated commercial areas.
 4. Concentrated residential and employment areas.
- **Bicycles:** A user-friendly bicycle network will be provided to welcome all riders throughout the entire Plan Area. Bicycle lanes including Class II and Class IV facilities should be provided on all Super Arterials, Arterials, and Local Streets. A Bicycled network should be designated on Neighborhood or Local Streets. Ensuring the safety of vulnerable users will be an important priority, as the Plan will seek to create a network of easy to use, lower stress amenities that provide the ability to connect riders to key designations throughout the City, as described in the Fresno Active Transportation Plan (2017).
- **Pedestrians:** A first-class pedestrian system shall be provided, including sidewalks on all streets, bicycle/pedestrian trails, and other design elements that prioritize safety and convenience for pedestrians, as described in the Fresno Active Transportation Plan (2017).
- **Vehicles:** A highly connected, grid-based roadway system shall be provided for efficient vehicular travel. Please see the Streets and Circulation Standards in the Development Code and the City of Fresno's Department of Public Works Standard Drawings.

Policy UF-5.7

Level of Service (LOS). To promote complete streets and provide safe mobility for all users throughout the entire SEDA, streets will be designed with no more than four through lanes and a continuous two-way left-turn land (portions of Jensen and Temperance Avenues may have more than four lanes). In addition, these LOS standards are complemented by several other transportation related policies to reduce overall vehicle miles traveled (such as complete streets and transportation demand management). The following LOS standards apply to SEDA roadways:

- LOS 'E' for Arterials, Collectors, and Local (both intersection and segment operations) during peak traffic hours.
- LOS 'F' Exception. LOS 'F' in areas with ample transit, pedestrian, and/or bicycle options, including in and around the Mixed-Use Districts of the SEDA,

particularly if achieving a LOS with less delay would violate the four-lane maximum as described above.

Open Space, Schools, and Public Facilities

Objective OS-11 Provide the necessary levels of police and fire services in accordance with the City of Fresno General Plan.

Policy OS-11.1 **Provision of Police Services.** Provide police services in the SEDA in accordance with the policies of the City of Fresno General Plan. If deemed necessary, the City of Fresno Planning and Development Department, through coordination with public safety agencies, can make adjustments to these policies.

Policy OS-11.2 **Provision of Fire Services.** Provide fire services in the SEDA in accordance with the policies of the City of Fresno General Plan. If deemed necessary, the City of Fresno Planning and Development Department, through coordination with public safety agencies, can make adjustments to these policies.

Policy OS-11.3 **Coordination with Police and Fire Departments.** The City of Fresno Planning and Development Department shall work with the Police and Fire departments as appropriate to promote safe environments throughout the SEDA and ensure that services can be provided in a manner that is sensitive and responsive to the needs of the community. Coordination may address:

- Evaluation of design features for safety and crime prevention
- Siting of police and fire substations
- Facilitation of citizen involvement processes

Greenhouse Gas Reduction and Conservation

Objective RC-1 Meet statewide targets set for greenhouse gas emissions reductions as set forth in the City's updated GHG [greenhouse gas] Reduction Plan, adopted in 2021.

Policy RC-1.5 **Waste Diversion, Recycling, and Energy Recovery.** Establishing programs and actions that promote recycling and diversion of waste from landfills can reduce energy consumed in the transport and handling of waste material and can reduce the greenhouse gases that are emitted during the decomposition of organic waste.

The State of California has adopted increasingly stringent mandates for the percentage of solid waste that can be disposed in landfills. In addition, certain landfills have been mandated to install methane capture systems to result in greenhouse gas reductions from these sources. The effects of methane are powerful—as it is 21 times more effective than carbon dioxide in retaining heat in the atmosphere. Methane can be flared, producing mainly carbon dioxide or used in combustion devices to generate heat or power that can be used for productive

purposes displacing the use of fossil fuels. The following policies are recommended in the SEDA to reduce GHGs and conserve energy:

1. Maintain current targets for recycling and re-use of all types of waste material in the City and enhance waste and wastewater management practices to reduce natural resource consumption, including the following measures:
 - a) Continue to require recyclable material collection and storage areas in all residential development.
 - b) Establish recycling collection and storage area standards for commercial and industrial facilities to size the recycling areas according to the anticipated types and amounts of recyclable material generated.
 - c) Provide educational materials to residents on how and what to recycle and how to dispose of hazardous waste.
 - d) Provide recycling canisters and collection in public areas where trash cans are also provided.
 - e) Institute a program to evaluate major waste generators and identify recycling opportunities for their facilities and operations.
 - f) Continue to partner with the California Integrated Waste Management Board on waste diversion and recycling programs and the CalMax (California Materials Exchange) program.
 - g) Evaluate the feasibility of a residential, restaurant and institutional food waste segregation and recycling program, to reduce the amount of organic material sent to landfill and minimize the emissions generated by decomposing organic material.
 - h) Evaluate the feasibility of “carbon footprinting” for the City’s wastewater treatment facilities, biomass and composting operations, solid waste collection and recycling programs.
 - i) Expand yard waste collection to divert compostable waste from landfills.
 - j) Study the feasibility and cost-benefit analysis of a municipal composting program to collect and compost food and yard waste, including institutional food and yard waste, using the resulting compost matter for City park and median maintenance.
2. Create a strategic and operations plan for fulfilling the City Council resolution committing the City of Fresno to a Zero Waste goal.
3. Continue to pursue opportunities to reduce air pollution by using methane gas from the old City landfill and the City’s wastewater treatment process.

Objective RC-5 Protect surface and groundwater supplies from major sources of pollution.

Policy RC-5.2 **Hazardous Materials.** Prevent contamination of the groundwater table and surface water resources and discourage all pesticide use for agricultural and landscaping uses within the SEDA.

- **Signage:** Install appropriate signage to deter the discharge of hazardous materials into storm drains.

- **Pollution Prevention:** Provide information to SEDA residents on appropriate ways to dispose of hazardous materials and chemicals.
- **Pesticide Reduction:** Discourage all pesticide use for agricultural and landscaping uses within the SEDA.
- **Remediation:** Encourage rapid cleanup of contaminated groundwater consistent with applicable laws and regulations.

City of Fresno Municipal Code

Chapter 15 Article 25 of the Municipal Code outlines performance standards related to site and facility maintenance, noise, air contaminants, waste, and fire hazards to provide control measures to protect the community from nuisances, hazards, and objectionable conditions.

Chapter 15 Article 27 of the Municipal Code establishes standards for specific uses and activities. It provides regulations for the use and storage of pesticides, fertilizers, and hazardous materials, and for hazardous waste management facilities, and for use of hazardous materials in residences. It requires the preparation of a Hazardous Materials Plans for some uses.

3.9.4 - Methodology

Impacts related to hazards and hazardous materials resulting from implementation of the Specific Plan are discussed below. The following impact analysis is based on an assessment of baseline conditions for the Plan Area, including locations of hazardous materials use and storage through a review of various databases identifying existing contaminated sites and City emergency response and evacuation plan requirements. This analysis identifies potential impacts based on the interaction between the affected environment and construction, operation, and maintenance activities related to future development that could occur under the proposed project.

3.9.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist as thresholds to determine whether impacts hazards and hazardous materials are significant environmental effects.

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts to resources are significant. These questions reflect the input of planning and environmental professionals at the Governor's Office of Planning and Research and the California Natural Resources Agency, based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. Accordingly, the City has derived its significance criteria, based in part on the questions posed in Appendix G. These significance criteria are as follows:

The proposed project would be considered significant if the project would:

- 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, would it create a significant hazard to the public or the environment.
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard 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.

3.9.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Routine Transport, Use, or Disposal of Hazardous Materials

Impact HAZ-1: **The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.**

Impact Analysis

Buildout under the proposed project would include new development, infill development, and intensification of land uses within the Plan Area. Therefore, existing structures within the Plan Area may need to be demolished and new buildings will be constructed. Identification of hazardous materials or conditions would occur during subsequent CEQA review of any future discretionary projects.

Construction

Construction activities, including demolition and grading, could expose persons working or living in the Plan Area to potentially hazardous materials including but not limited to asbestos and lead from LBP as well as known or potentially unknown hazardous substances present in the soil or groundwater. Various federal, State, and local regulations and guidelines pertaining to the abatement of, and protection from, exposure to hazardous materials during construction activity. These requirements include San Joaquin Valley Air Pollution Control District (Valley Air District) requirements for demolitions and renovations; Construction Safety Orders 1529 (pertaining to asbestos) and 1532.1 (pertaining to lead) from Title 8 of the California Code of Regulations, Part 61, Subpart M of the Code of Federal Regulations (pertaining to asbestos); and lead exposure guidelines

provided by the Department of Housing and Urban Development (HUD). Asbestos and lead abatement must be performed and monitored by contractors with appropriate certifications from the State Department of Health Services. In addition, Cal/OSHA has regulations concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous materials, describing the hazards of chemicals, and documenting employee training programs. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards.

As described above in Section 3.9.2, there are sites containing hazardous materials located throughout the Plan Area, which pose potential health hazards. However, new development on contaminated areas that would occur as a result of the proposed project would be required to be remediated (i.e., cleaned up) prior to the commencement of construction activities. These activities would be under the supervision of DTSC, the City and County of Fresno, and/or RWQCB, depending on the site characteristics. Potential soil contamination in these areas must be properly identified and cleaned up prior to any development activities on any of these sites to prevent exposure of people and the environment to these hazards. Similarly, if groundwater contamination has been identified, remediation activities would be required by the RWQCB, DTSC, or other appropriate regulatory agency prior to the start of any new construction activities.

Operation

As described above, hazardous materials related to the agriculture industry and agriculture related businesses are routinely transported and used within the Plan Area. Residential and public facilities use small quantities of hazardous materials, such as paints or cleaning supplies. Federal, State, and local agencies maintain records of facilities that use large quantities of hazardous materials or generate hazardous waste. The use of certain hazardous materials necessitates a risk management plan to prevent hazardous materials from impacting the surrounding area.

Implementation of the proposed project would result in the continued use and storage of hazardous materials, including common cleaning products, building maintenance products, paints and solvents, and other similar items. However, these items would not be used in large enough quantities to pose a significant risk to the public or the environment. Furthermore, the quantity of large agricultural operations and associated hazardous materials would be reduced as a result of the proposed project.

Additionally, pursuant to Health and Safety Code, Division 20, Chapter 6.95, Section 25507, a hazardous materials business plan would be required for facilities that store, use, or handle high quantities of hazardous materials. In general, hazardous materials business plans provide guidance to firefighters, health officials, planners, public safety officers, and health care providers in the event of an emergency. Implementation of a hazardous materials business plan would prevent hazards from impacting the public or the environment in the event that a hazardous material is released. The Fresno County Health Department's CUPA is responsible for monitoring compliance with hazardous materials business plans, as well as other regulatory programs such as the operation of USTs and hazardous waste treatment and disposal.

All future development under the Specific Plan must also adhere to applicable General Plan policies intended to reduce potential project-specific impacts regarding routine transport, use, or disposal of hazardous materials, including Objective NS-4, Policies NS-4-a through NS-4-g, and Policy NS-4-l, as described in Section 3.9.3, Regulatory Framework, above.

Additionally, the Specific Plan contains proposed policies that would further minimize risk to the public or environment resulting from the transportation, use, or disposal of hazardous materials. For example, Policy RC-5.2 aims to prevent contamination of the groundwater table and surface water resources and discourage all pesticide use for agricultural and landscaping uses within SEDA through the use of signage, provision of pollution prevention information to SEDA residents and remediation actions.

Any future individual development projects that involve the transport, use, or disposal of hazardous materials would be subject to existing federal, State, and local regulations outlined in Section 3.9.3 Regulatory Framework. Regulatory programs overseen/administered by the local CUPA, as well as compliance with applicable laws, regulations, and policies, would ensure hazardous impacts associated with the routine transport, use, or disposal of hazardous materials are less than significant. Thus, at the programmatic level, impacts would be less than significant. Consistent with the General Plan and the proposed Specific Plan policies, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific measures to reduce any potential impacts and ensure that impacts remain less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Risk of Upset

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.
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Impact Analysis

Implementation of the Specific Plan would result in continued use and storage of hazardous materials, including household cleaning products, paints, solvents, building maintenance products, etc. Furthermore, as illustrated in Table 3.9-1 and Table 3.9-2, some sites within the Plan Area have residual contamination that may require remediation. In addition, if existing structures are demolished to accommodate new development, hazardous building materials such as ACM or LBP could be encountered. Transport of hazardous materials is likely to continue to occur on SR-180. Therefore, there is a potential for accidental release of hazardous materials within the Plan Area.

The Fresno Fire Department (FFD) has a Hazardous Materials Response Team (HMRT) that handles hazardous materials incidents within the City and consists of 60 personnel.¹² The FFD HMRT ensure that the community receives a robust, competent Level of Service (LOS) provided in the event of an accidental hazardous material release. Furthermore, all new development resulting from the proposed project that would handle, store, produce, or dispose of hazardous materials would be subject to federal, State, and local regulations outlined in Section 3.9.3, Regulatory Framework. Furthermore, the SEDA Specific Plan proposes primarily residential and mixed-use land uses that are not expected to use and store large quantities of hazardous materials.

Additionally, future development under the Specific Plan would be required to adhere to applicable General Plan policies intended to reduce potential project-specific impacts, including Objective NS-4, Policies NS-4-a through NS-4-g, and Policy NS-4-I, as described in Section 3.9.3, Regulatory Framework, above.

However, the sites identified in Table 3.9-1 and Table 3.9-2 includes contaminated properties owned by multiple property owners. Contaminated properties within the Plan Area would be remediated and developed in accordance with regulatory requirements. However, the cleanup process also would be subject to case-by-case considerations, with regulatory actions and oversight subject to agency-owner interactions and negotiations. While compliance with applicable federal, State, and local standards (including the hazardous materials policies under General Plan Objective NS-4) requires sites contaminated with hazardous materials to be cleaned up, the redevelopment of these or other future sites where hazardous materials are unknown could create a significant impact to future occupants of the Plan Area and/or construction workers. Therefore, the following project-specific mitigation measures regarding hazardous materials would reduce potential impacts regarding the creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving release of hazardous materials into the environment: Mitigation Measure (MM) HAZ-2a through MM HAZ-2h.

MM HAZ-2a requires new development to prepare a Phase I Environmental Site Assessment (Phase I ESA), which would identify Recognized Environmental Conditions (RECs) and become the basis for potential recommendations for follow-up investigation. MM HAZ-2b requires a Phase II ESA to be prepared to further evaluate RECs determined in the Phase I ESA. MM HAZ-2c requires additional Phase II ESAs to be prepared in the event that the initial Phase II ESA describes site characteristics that require further investigation. MM HAZ-2d requires site remediation in the event that the Phase II ESA(s) find concentrations of hazardous materials exceeding regulatory thresholds. MM HAZ-2e requires the use of an Environmental Site Management Plan (ESMP), when applicable. MM HAZ-2f provides requirements for sites with potential residual volatile organic compounds (VOCs) in soil, soil gas, or groundwater that are planned for redevelopment with an overlying occupied building. MM HAZ-2g provides requirements for demolitions when ACM and LBP may be present. Finally, MM HAZ-2h provides requirements that must be followed in the event that soils with toxic or hazardous materials concentrations that exceed applicable Environmental Screening Levels are found.

¹² City of Fresno. Fire Suppression. Website: <https://www.fresno.gov/fire/fire-suppression/>. Accessed May 19, 2022.

In addition to the above referenced MM HAZ-2a through MM HAZ-2h, any future individual development projects that involve the transport, use, or disposal of hazardous materials would be subject to existing federal, State, and local regulations outlined in Section 3.9.3 Regulatory Framework as well as regulatory programs overseen/administered by the local CUPA. Compliance with the laws and regulations referenced above under Impact HAZ-1, would ensure hazardous impacts from development of the proposed Plan related to the creation of a possible hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment are anticipated to be less than significant. Consistent with the General Plan and proposed Specific Plan policies, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific measures to reduce any potential impacts and ensure that impacts remain less than significant.

Level of Significance Before Mitigation

Potentially significant.

Mitigation Measures

MM HAZ-2a Prior to the issuance of a grading permit, the property owners and/or developers of properties shall ensure that a Phase I Environmental Site Assessment (Phase I ESA) (performed in accordance with the current Airborne Toxic Control Measures [ATCM] Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process [E 1527]) shall be conducted for each individual property prior to development or redevelopment to ascertain the presence or absence of Recognized Environmental Conditions (RECs), Historical Recognized Environmental Conditions (HRECs), and Potential Environmental Concerns (PECs) relevant to the property under consideration. The findings and conclusions of the Phase I ESA shall become the basis for potential recommendations for follow-up investigation, if found to be warranted.

MM HAZ-2b In the event that the findings and conclusions of the Phase I Environmental Site Assessment (Phase I ESA) for a property result in evidence of Recognized Environmental Conditions (RECs), Historical Recognized Environmental Conditions (HRECs) and/or Potential Environmental Concerns (PECs) warranting further investigation, the property owners and/or developers of properties shall ensure that a Phase II ESA shall be conducted to determine the presence or absence of a significant impact to the subject site from hazardous materials. The Phase II ESA may include but may not be limited to the following: (1) Collection and laboratory analysis of soils and/or groundwater samples to ascertain the presence or absence of significant concentrations of constituents of concern; (2) Collection and laboratory analysis of soil vapors and/or indoor air to ascertain the presence or absence of significant concentrations of volatile constituents of concern; and/or (3) Geophysical surveys to ascertain the presence or absence of subsurface features of concern such as underground storage tanks (USTs), drywells, drains, plumbing, and septic systems. The findings and conclusions of the Phase II ESA shall become the

basis for potential recommendations for follow-up investigation, site characterization, and/or remedial activities, if found to be warranted.

- MM HAZ-2c** In the event the findings and conclusions of the Phase II Environmental Site Assessment (Phase II ESA) reveal the presence of significant concentrations of hazardous materials warranting further investigation, the property owners and/or developers of properties shall ensure that site characterization shall be conducted in the form of additional Phase II ESAs in order to characterize the source and maximum extent of impacts from constituents of concern. The findings and conclusions of the site characterization shall become the basis for formation of a remedial action plan and/or risk assessment.
- MM HAZ-2d** If the findings and conclusions of the Phase II Environmental Site Assessment (Phase II ESA), site characterization and/or risk assessment demonstrate the presence of concentrations of hazardous materials exceeding regulatory threshold levels, prior to the issuance of a grading permit, property owners and/or developers of properties shall complete site remediation and potential risk assessment with oversight from the applicable regulatory agency including, but not limited to, the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) or Regional Water Quality Control Board (RWQCB), and Fresno County Environmental Health Division (FCEHD). Potential remediation could include the removal or treatment of water and/or soil. If removal occurs, hazardous materials shall be transported and disposed at a hazardous materials permitted facility.
- MM HAZ-2e** Prior to the issuance of a building permit for an individual property within the Plan Area with residual environmental contamination, the agency with primary regulatory oversight of environmental conditions at such property ("Oversight Agency") shall have determined that the proposed land use for that property, including proposed development features and design, does not present an unacceptable risk to human health, if applicable, through the use of an Environmental Site Management Plan (ESMP) that could include institutional controls, site-specific mitigation measures, a risk management plan, and deed restrictions based upon applicable risk-based cleanup standards. Remedial action plans, risk management plans and health and safety plans shall be required as determined by the Oversight Agency for a given property under applicable environmental laws, if not already completed, to prevent an unacceptable risk to human health, including workers during and after construction, from exposure to residual contamination in soil and groundwater in connection with remediation and site development activities and the proposed land use.
- MM HAZ-2f** For those sites with potential residual volatile organic compounds (VOCs) in soil, soil gas, or groundwater that are planned for redevelopment with an overlying occupied building, a vapor intrusion assessment shall be performed by a licensed environmental professional. If the results of the vapor intrusion assessment indicate the potential for significant vapor intrusion into the proposed building, the project

design shall include vapor controls or source removal, as appropriate, in accordance with Regional Water Quality Control Board (RWQCB), the California Department of Toxic Substances Control (DTSC) or the Fresno County Environmental Health Division (FCEHD) requirements. Soil vapor mitigations or controls could include passive venting and/or active venting. The vapor intrusion assessment as associated vapor controls or source removal can be incorporated into the Environmental Site Management Plan (ESMP) (Mitigation Measure HAZ4-4e).

MM HAZ-2g In the event of planned renovation or demolition of residential and/or commercial structures on the subject site, prior to the issuance of demolition permits, asbestos and lead-based paint (LBP) surveys shall be conducted in order to determine the presence or absence of asbestos-containing materials (ACM) and/or LBP. Removal of friable ACM, and non-friable ACMs that have the potential to become friable, during demolition and/or renovation shall conform to the standards set forth by the National Emissions Standards for Hazardous Air Pollutants (NESHAPs).

The San Joaquin Valley Air Pollution Control District (Valley Air District) is the responsible agency on the local level to enforce the NESHAPs and shall be notified by the property owners and/or developers of properties (or their designee(s)) prior to any demolition and/or renovation activities. If asbestos-containing materials are left in place, an Operations and Maintenance Program (O&M Program) shall be developed for the management of asbestos-containing materials (ACM).

MM HAZ-2h Prior to the import of a soil to a particular property within the Plan Area as part of that property's site development, such soils shall be sampled for toxic or hazardous materials to determine whether concentrations exceed applicable Environmental Screening Levels for the proposed land use at such a property, in accordance with Regional Water Quality Control Board (RWQCB), the Fresno County Environmental Health Division (FCEHD), and the California Department of Toxic Substances Control (DTSC), including but not limited to the DTSC 2001 Information Advisory Clean Imported Fill Material Fact Sheet, which identifies land use activities appropriate for a fill material source area and provides guidelines for types of analyses to be performed, prior to importing to such a property.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Hazardous Emissions Proximate to a School

Impact HAZ-3:	The proposed project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
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Impact Analysis

Presently, the Lone Star Elementary School, located in the southern portion of the Plan Area, is the only school in the Plan Area. However, Clovis Unified School District is constructing an educational

center for middle and high school students in the northern portion of the Plan Area on a site along the Clinton Avenue alignment between Leonard and Highland Avenues, with phased opening expected in 2025.

The SEDA Specific Plan proposes to build schools within Neighborhood Town Centers, which are shown in Chapter 2, Project Description, Exhibit 2-2. The proposed project aims to provide nearly all homes to be within walking distance of an elementary school. However, the exact location of future school developments is not known at this time.

As illustrated in Table 3.9-1 and Table 3.9-2, some sites within the Plan Area have residual contamination that may require remediation. Therefore, development under the proposed project could include land uses, or could include disturbance of existing hazardous cleanup sites, which have the potential to emit hazardous emissions or handle hazardous materials and substances. It is anticipated that future development under the proposed project could occur within 0.25 mile of an existing or future school.

However, any future individual development projects that involve the transport, use, or disposal of hazardous materials would be subject to existing federal, State, and local regulations outlined in Section 3.9.3, Regulatory Framework. Future individual projects would be subject to City review and an environmental site assessment would be required for proposed projects sited near schools.¹³

Additionally, future development under the Specific Plan would be required to adhere to applicable General Plan policies intended to reduce potential project-specific impacts, including Objective NS-4, Policies NS-4-a through NS-4-g, and Policy NS-4-I, as described in Section 3.9.3, Regulatory Framework, above. The Specific Plan contains proposed policies that would further minimize risk of emissions of hazardous materials near schools. For example, Policy RC-5.2 aims to prevent contamination of the groundwater table and surface water resources and discourage all pesticide use for agricultural and landscaping uses within SEDA through the use of signage, provision of pollution prevention information to SEDA residents and remediation actions.

Moreover, implementation of the project-specific mitigation measures discussed under Impact HAZ-2, MM HAZ-2a through MM HAZ-2h, would further reduce impacts to schools. As stated in the discussions of Impacts HAZ-1 and HAZ-2, all future development under the proposed project would be required to achieve compliance with existing federal, State, and local regulations, procedures, and policies would avoid potential impacts associated with hazardous materials handling, use, and storage in the Plan Area. Compliance with these regulations, procedures, and policies would ensure that hazardous materials are properly handled, thereby reducing potential risks to nearby schools. At the programmatic level, impacts related to the handling of hazardous materials near a school would be reduced to a less than significant level with the implementation of MM HAZ-2a through MM HAZ-2h.

¹³ California Department of Education. School Site Selection and Approval Guide. Website: <https://www.cde.ca.gov/ls/fa/sf/schoolsiteguide.asp#emissions>. Accessed May 19, 2022.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implementation of MM HAZ-2a through MM HAZ-2h.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Government Code Section 65962.5 Sites

Impact HAZ-4:	The proposed project could 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, could create a significant hazard to the public or the environment.
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Impact Analysis

As illustrated in Table 3.9-1 and Table 3.9-2, some sites within the Plan Area have residual contamination, including contamination from VOCs, diesel, gasoline, various metals, pesticides, herbicides, PCBs, and other chemicals. For a majority of these properties, remediation to mitigate potential impacts is complete and the cases are marked as closed. However, some of the sites have open cases and additional action is recommended. Remediation is meant to clean up contaminated sites and reduce concentrations of chemicals to a level to a certain human health risk threshold. For a site to be developed, a regulatory agency must confirm that the site has been remediated properly and the contamination has been reduced to a safe level.

Contaminated sites are regulated on an individual basis in accordance with applicable federal, State, and local procedures and standards. However, regulatory actions are subject to agency-owner negotiations. Additionally, future development resulting from the Specific Plan could occur on sites where hazardous materials are unknown. This would create a potentially significant impact.

However, as further discussed under Impact HAZ-2, implementation of the project-specific mitigation measures discussed under Impact HAZ-2, MM HAZ-2a through MM HAZ-2h, would reduce impacts related to these sites to a less than significant level. Consistent with the General Plan and proposed Specific Plan policies, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific measures to reduce any potential impacts and ensure that impacts remain less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implementation of MM HAZ-2a through MM HAZ-2h.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Proximity to Public Airport Safety Hazard

Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the proposed project would not result in a safety hazard or excessive noise for people residing or working the project area.

Impact Analysis

As described above, Fresno Yosemite International Airport is located approximately 2 miles from the Plan Area, along East Clinton Way. According to the Fresno Yosemite International Airport Safety Compatibility Zones Map, a small portion of the Plan Area is located within the 60 dB CNEL contour.¹⁴ A Larger portion of the Plan Area is located within the Traffic Pattern Zone.¹⁵

The 2018 Fresno County Airport Land Use Compatibility Plan (ALUCP) is the plan that governs land use compatibility around Fresno Yosemite Airport. State law establishes that the Fresno County Airport Land Use Commission (ALUC) is one of the review authorities for new land use plans in the Airport Influence Area (AIA). Therefore, ALUC review of the Specific Plan is required. The ALUC advises the City on land use designations in terms of noise, safety, and airspace hazards. The ALUC found the proposed project to be consistent with the ALUCP on August 7, 2023. Therefore, at the programmatic level, impacts to the Plan Area would be less than significant. Consistent with the General Plan and SEDA Specific Plan policies, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific or project-specific airport land use compatibility measures to reduce any potential impacts and ensure that impacts remain less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

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.

Impact Analysis

The Fresno Police Department (FPD) and FFD are the lead agencies for all local emergency response efforts. In addition, the City's full-time Emergency Preparedness Officer (EPO) is responsible for ensuring that Fresno's emergency response plans are up-to-date and implemented properly. The

¹⁴ Fresno Council of Governments (COG). Airport Land Use Compatibility Plan. Exhibit D2 Future Noise Contours. Fresno Yosemite International Airport. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/04/ALUCP-Fresno-Yosemite-International-Airport.pdf>. Accessed May 17, 2022.

¹⁵ Fresno Council of Governments (COG). Airport Land Use Compatibility Plan. Exhibit D1- Fresno Yosemite Intl. – Airport Influence Area and Safety Zones. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/04/ALUCP-Fresno-Yosemite-International-Airport.pdf>. Accessed May 17, 2022.

EPO also facilitates cooperation between City departments and other local, State, and federal agencies that would be involved in emergency response operations.¹⁶

Development of the Plan Area would increase the development of residential, mixed use, research and development, institutional, and office land uses. These types of land uses are not expected to impair implementation of or physically interfere with adopted emergency response plans or emergency evacuations plans in the City.

Furthermore, the Specific Plan includes various proposed policies that would reduce impacts in case of an emergency. Policy UF-5.1 requires implementation of the Major Circulation Plan, which would improve traffic circulation within the Plan Area in case of an emergency. Policy UF-5.6 sets criteria for vehicle travel facilities. Policy UF-5.7 sets LOS standards. Policy OS-11.1, and Policy OS-11.2, and Policy OS-11.3 require the provision of adequate police and fire services in the SEDA in accordance with the policies of the General Plan and require that the Planning Department work with police and fire departments during buildout of the SEDA Specific Pan to ensure services are responsive to community needs.

At the programmatic level, impacts to the Plan Area would be less than significant. Consistent with the General Plan and SEDA Specific Plan policies, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific or project-specific measures to reduce any potential impacts and ensure that impacts remain less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

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.
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Impact Analysis

CAL FIRE designates the Plan Area as an LRA.^{17,18} The San Joaquin River Bluffs area is identifies as having a high fire risk because it is steep terrain. However, the Plan Area is located approximately 9 miles southeast of this area.

Although portions of the City or nearby areas are designated as having high fire hazard severity, the primarily agricultural land in the Plan Area is actively managed and cultivated and therefore does not

¹⁶ City of Fresno. Mayor's Office. Emergency Preparedness. Website: <https://www.fresno.gov/mayor/emergency-preparedness/>. Accessed May 19, 2022.

¹⁷ California Department of Forestry and Fire Protection (CAL FIRE). 2007. Draft Fire Hazard Severity Zones in LRA. Fresno County. Website: https://osfm.fire.ca.gov/media/6673/fhszl06_1_map10.pdf. Accessed May 17, 2022.

¹⁸ City of Fresno. 2018. Fresno County Multi-Hazard Mitigation Plan. Figure 4.52 Fresno County's Wildfire Severity Zones. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/12/FresnoCountyHMPFinal.pdf>. Accessed March 21, 2023.

pose a high fire risk. Development of the Plan Area would result in more paved areas, thereby reducing wildfire risks. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

3.9.7 - Cumulative Impacts

The geographic context for an analysis of cumulative impacts related to hazards and hazardous materials is the Plan Area as well as the rest of the City and adjacent communities in the City of Clovis and unincorporated Fresno County. This analysis evaluates whether the impacts of the proposed project, together with the impacts of cumulative development, would result in a cumulatively significant impact related to hazards and hazardous materials. This analysis then considers whether incremental contribution to cumulative impacts associated with the implementation of the proposed project would be significant. Both conditions must apply for a project's cumulative effects to rise to a level of significance. If both conditions apply, this analysis will then evaluate feasible cumulative mitigation that would reduce cumulative effects. If one or both conditions do not apply, cumulative impacts would be less than significant, and no cumulative mitigation is necessary.

Hazards and Hazardous Materials

Cumulative projects would be subject to the requirements and regulations set forth by the EPA, OSHA, USDOT, DTSC, Caltrans, CHP, and the San Joaquin Valley Air Pollution Control District (Valley Air District) related to transport, use, and disposal of hazardous materials. Accordingly, cumulative development would not result in physical changes that would result in a significant environmental effect. Cumulative projects will also be required to comply with the California Code of Regulations during construction, site grading, excavation operations, and building demolition. For these reasons, cumulative projects would have a less than significant cumulative effect.

Moreover, the Specific Plan's incremental contribution to the less than significant cumulative impacts would not be significant. As previously discussed, development under the Specific Plan would result in additional residential and nonresidential development, as well as other private and public improvements throughout the Plan Area, which could result in an increase in the routine transportation, use, and disposal of hazardous materials. Potential impacts would be reduced to below a level of significance, as discussed above, because construction must comply with the California Code of Regulations and implement a Storm Water Pollution Prevention Plan (SWPPP) to prevent hazardous materials spills and protect public safety, and all future development would implement MM HAZ-2a through MM HAZ-2h.

To ensure that development consistent with the Specific Plan results in a less than significant contribution to cumulative impacts, applications for development would be reviewed by the City for compliance with existing General Plan policies and actions and the proposed Specific Plan policies to

further reduce potential impacts related to sites with known hazardous materials to less than significant.

Accordingly, development under the Specific Plan would not result in physical changes that would incrementally contribute to a significant environmental effect. For these reasons, the proposed project's contribution to cumulative impacts would be considered less than significant.

Airport Safety Hazards

Cumulative projects would be subject to the requirements and regulations set forth by the Fresno Yosemite International Airport ALUCP and FAA related to the exposure of people residing or working in the area to a safety hazard or excessive noise. Cumulative projects would also be required to comply with the existing General Plan policies, proposed Specific Plan policies, and Municipal Code regulations related to interior noise standards and maximum building heights. For these reasons, cumulative projects would have a less than significant effect.

Moreover, the Specific Plan's incremental contribution to cumulative impacts would not be significant. As previously discussed, development under the Specific Plan would result in additional residential and nonresidential development, as well as other private and public improvements throughout the Plan Area, which could result in an increase in the exposure of people residing or working in the area to a safety hazard or excessive noise. Potential impacts would be reduced to below a level of significance, as discussed above, because future projects would be required to comply with the policies and actions within the General Plan and the Municipal Code regarding interior noise standards and maximum building heights permitted under Federal Aviation regulations. To ensure a less than significant contribution to cumulative impacts, development consistent with the Specific Plan will be required to implement all applicable policies during the design review process. As the City receives development applications for subsequent development under the Specific Plan, those applications would be reviewed by the City for compliance with General Plan policies and actions as well as the Municipal Code to further reduce potential impacts related to the exposure of people residing or working in the area to a safety hazard or excessive noise.

Emergency Response and Evacuation Plan

Cumulative impacts related to emergency response and evacuation plans would be less than significant. The City's Police and Fire Departments manage and maintain emergency plans and training of City staff and community members and focuses on activities that will prepare the community to take care of itself in the period immediately following a local disaster. Adjacent jurisdictions also have emergency response plans and emergency evacuation plans. Furthermore, larger regional and statewide resource areas are regulated by State agencies to address larger-scale statewide issues. For these reasons, cumulative impacts associated with emergency response and evacuation plans are less than significant.

Moreover, the Specific Plan's incremental contribution to these less than significant cumulative impacts would not be significant. To ensure a less than significant contribution to cumulative impacts, development consistent with the Specific Plan would be required to implement all

applicable policies and actions during the design review process. As the City receives development applications for subsequent development under the Specific Plan, those applications would be reviewed by the City for compliance with the policies and actions of the General Plan related to emergency response plans and emergency evacuation plans. Therefore, the proposed project's contribution to cumulative impacts would be considered less than significant.

Level of Cumulative Significance Before Mitigation

Less than significant impact.

Cumulative Mitigation Measures

None required.

3.10 - Hydrology and Water Quality

3.10.1 - Introduction

This section describes the existing hydrology and water quality setting and potential effects of project implementation on the Plan Area and its vicinity. Descriptions and analysis in this section are based, in part, on the 2020 Urban Water Management Plan (UWMP), the Fresno Metropolitan Flood Control District (FMFCD) 2016 District Services Plan, and the 2019 North Kings Groundwater Sustainability Plan (North Kings GSP).

As further discussed in Chapter 1, Introduction, 36 public comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to the project's potential hydrologic impacts:

- Identifies locations within the Plan Area that are within Special Flood Hazard Areas, which would be subject to Fresno County Ordinance Code Title 15, Chapter 15.48 as well as Federal Emergency Management Agency (FEMA) flood elevation requirements as applicable.
- States that any construction within or near a stream will require a clearance from the California Department of Fish and Wildlife (CDFW) and Streambed Alteration Agreement if buildout would result in alteration or degradation.
- Recommends that any improvements constructed within or near a canal should be coordinated with the owners of the canal/appropriate agency.
- Recommends that the FMFCD be consulted regarding future development near flood drainage basins.
- Identifies that any future development under the Southeast Development Area (SEDA) Specific Plan that would be greater than 1 acre would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit and produce a Storm Water Pollution Prevention Plan (SWPPP).
- States that any grading will require either an engineered grading and drainage plan, road improvement plan, permit, or voucher and must comply with the City of Fresno (City) standards/requirements.
- States that Fresno County (County) has a water--providing Community Service Area (CSA) (CSA 14) which is interested in connecting to the City's water system and that the County has several road CSAs within the Plan Area.
- Identifies the Fresno Irrigation District (FID) canals in the Plan Area.
- States that many of the existing facilities will need to be upgraded to meet the current urban standards or relocated by the developer to accommodate new urban developments, which will require new pipelines and new exclusive easements.
- Requires that all open channels and existing pipelines impacted by the project area development be upgraded to meet FID's current standards for urban, rural, and industrial areas.

- Requires that development impacts to large canal crossings be designed to protect the canal's integrity for an urban setting, including the need for access and full right-of-way widths for FID's operations and maintenance needs.
- Identifies that the FID facilities within the Plan Area carry irrigation water for FID users, recharge water for the City, and flood waters during winter months.
- Requires that development within the Plan Area will not result in an increase in the City's surface water allocation from FID.
- Requests that the Draft PEIR evaluate whether the City's Water Master Plan needs to be updated and how the Cooperative Agreement between the City and FID may impact development within the Plan Area.
- Requests that the Draft PEIR evaluate whether previous projects proposed under the City's Water Master Plan resulted in the benefits anticipated.
- Requests that the Draft PEIR require that any future development minimize water demand and/or reduce impacts to groundwater.
- Requires that if any future development under SEDA that uses treated surface water during a period where the City has a deficit water supply or groundwater levels continue to drop, then the City must acquire additional water from a water purveyor as to not impact water supplies or exacerbate the deficit.
- Identifies that groundwater overdraft is an issue in the City and requires that the Draft PEIR evaluates the SEDA Specific Plan's impact on groundwater resources.
- States that approximately 4,200 acres of the Plan Area is outside the current FMFCD boundary and thus the FMFCD's Sphere of Influence (SOI) will be adjusted to include the Plan Area.
- Requires that all impacts to stormwater runoff created by increasing densities in developed area that affect the capacity of the existing Master Planned storm drainage system must be fully mitigated.
- States that FMFCD has studied the areas not currently located within a Master Planned Area and has located the tentative basin facilities in an attached Exhibit that must be incorporated in the SEDA Proposed Land Use Plan.
- States that the City, FMFCD, and the County are all currently covered as co-permittees for the Municipal Separate Storm Sewer System (MS4) discharges through the NPDES Permit and discusses procedure for future projects under SEDA for permitting.
- Requests that all future California Environmental Quality Act (CEQA) review within the City, including the SEDA area, utilize the Guidance for Addressing Stormwater Quality for CEQA Review document.
- States that existing FMFCD policy requires post-development requirements for areas not served by stormwater basins or areas that discharge to sensitive waterbodies. Should future development under SEDA include sustainable infrastructure, coordination between the City and FMFCD must take place to ensure plans are suited to meet stormwater quality regulatory objectives and are compatible with drainage standards in the Fresno area.

- Recommends that the Draft PEIR evaluate impacts related to the construction of Master Planned storm drainage facilities to the extent feasible to prevent duplicate CEQA processing.
- States that future development under SEDA would be subject to drainage fees pursuant to the Drainage Fee Ordinance prior to approval of any final maps and/or issuance of building permits at the rates in effect at the time of such approval.
- Requires that the grading of proposed development within the Plan Area shall be designed such that there are not adverse impacts to the passage of major storm flow through that development.
- Requires that future development provide any surface flowage easements or covenants for any portions of the developing area that cannot convey stormwater to public right-of-way without crossing private property.
- Requires that FMFCD review and approve the final improvement plans for all development (i.e., grading, street improvement, and storm drain facilities) within the boundaries of the proposed project to ensure consistency with the future Storm Drainage Master Plan.
- Requires that a storm drain easement is obtained whenever storm drain facilities are located on private property. No encroachments into the easement will be permitted, including, but not limited to, foundations, roof overhangs, swimming pools, and trees.
- Requires that all future development verify that permanent drainage service is available with FMFCD to ensure that runoff can be safely conveyed to existing Master Plan facilities.
- Encourages but does not require that roof drains from nonresidential development be constructed such that they are directed onto and through a landscaped grassy swale area to filter out pollutants from roof runoff.
- Requires that runoff from areas where industrial activities, product, or merchandise come into contact with and thus contaminate stormwater must be directed through landscaped areas or otherwise treated before discharging it off-site or into a storm drain.
- Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the planning area.
- Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impact.
- Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.10.2 - Environmental Setting

Surface Hydrology

The City of Fresno is located in the Upper Dry Subbasin of the Tulare-Buena Vista Lakes Watershed. The Tulare-Buena Vista Lakes Watershed generally consists of the drainage area of the San Joaquin Valley south of the San Joaquin River. This includes major population centers such as Fresno,

Bakersfield, Porterville, Hanford, Tulare, and Visalia. Encompassing approximately 10.5 million acres, water primarily flows through the watershed from the northeast to the southwest, from the Sierra Nevada to the San Joaquin Valley. Rivers in the basin typically end at the Tulare Lake and Buena Vista Lake in the western San Joaquin Valley, but some surface water can drain north to the San Joaquin River during years of extreme rainfall. The main rivers that produce surface waters within the basin include the Kings, Kaweah, Tule, and Kern Rivers. Additional suppliers of surface water in the basin area include the San Luis Canal/California Aqueduct System, Friant-Kern Canal, and the Delta-Mendota Canal, which contribute imported surface waters to the basin.¹

The Upper Dry Subbasin is approximately 2,126 square miles in area and encompasses much of western Fresno County and small portions of Kings and San Benito Counties.² There are several streams that run throughout both the basin and subbasin, of which the major ones include Dry Creek, Dog Creek, and Fancher Creek.³ Drainage in much of the subbasin area has been utilized as agricultural irrigation supply through the engineering and construction of numerous canal and conveyance systems.

The San Joaquin River and the Kings River are the principal rivers that influence the hydrology in Fresno. The Kings River is connected to the San Joaquin River by the James Bypass, a manmade canal. Floodwater from the Kings River is diverted to the San Joaquin River; three dams control the flows on the two rivers. The Friant and Mendota Dams are located on the San Joaquin River. While these two dams provide some flood control, that was not their designed purpose; they were designed as reservoirs for municipal and agricultural irrigation supply. The Pine Flat Dam on the Kings River, however, was designed for flood control. There are also multiple reservoirs and detention basins that have been constructed to prevent flooding. These facilities include the Redbank Dam, Big Dry Creek Dam, Fancher Creek Dam, Redbank Creek, Pup Creek, and the Alluvial Drain Detention Basins. These facilities, along with the numerous canals, convey discharges throughout the City. These facilities were designed to protect developed areas from a 200-year storm event.⁴

Surface Water Uses

Municipal Use

The City began using surface water as a source of potable water in 2004 with the activation of the Northeast Surface Water Treatment Facility (NESWTF). The facility, located at Chestnut and Behymer Avenues, is designed for a 30 million gallons per day (mgd) capacity and is planned to be expanded to a total of 60 mgd as development in the City continues. Surface water starts as snow melt in the Sierra Nevada before traveling down the San Joaquin and Kings Rivers via Millerton Lake and Pine Flat Reservoir. These serve as temporary storage locations before the surface water is delivered via the Enterprise Canal to the NESWTF, where the water is treated to drinking water standards. In 2017, the Friant-Kern Pipeline was completed, which allows water from the San Joaquin River to be

¹ Central Valley Regional Water Quality Control Board (Central Valley RWQCB) Water Quality Control Plan for the Tulare Lake Basin. Third Edition, May 2018.

² California Department of Fish and Wildlife (CDFW). 2020. Biogeographic Information and Observation System (BIOS). Website: <https://wildlife.ca.gov/Data/BIOS>. Accessed July 5, 2022.

³ United States Geological Survey (USGS). 2020. The National Map Advanced Viewer. Website: <https://viewer.nationalmap.gov/advanced-viewer/>. Accessed July 5, 2022.

⁴ Fresno Metropolitan Flood Control District (FMFCD). 2016. 2016 District Services Plan.

delivered directly to the NESWTF. This allows improved water quality, increased reliability, and greater flexibility in operating the facility. The City also completed construction of the Southeast Surface Water Treatment Facility (SESWTF), which is a 54 mgd facility with an ultimate capacity of 80 mgd.⁵ This included a 72-inch raw water transmission main to convey surface water from the FID's Fresno Canal to the SESWTF.

Agricultural Use

FID serves a 383-square-mile area in the County, centered on metropolitan Fresno, with surface water from the Kings and San Joaquin Rivers for agricultural irrigation use.⁶ FID has historically diverted an average of 453,800 acre-feet per year (AFY) from 1964 to 2019 depending on type of hydrologic year.⁷

Project Site

As the Plan Area is located within the City's SOI, it experiences similar surface hydrology. The Friant Dam is approximately 14 miles north and upstream from the Plan Area; the Mendota Dam is approximately 37 miles west and downstream from the Plan Area; and the Pine Flat Dam is approximately 16 miles east and upstream from the Plan Area.

There are a number of existing FID facilities that cross the Plan Area, including canals and pipelines; these include, from northeast to southwest: Redbank Creek, the Gould Canal, the Gray Colony Canal, Dog Creek, the Mill Canal, the Temperance Canal, the Fancher Creek Canal, the Briggs Canal, the East Branch West Branch Canal, the Hansen Canal, and the Armstrong Canal.

Some portions of the Plan Area are encompassed within FMFCD's service area; however, a majority of the area is outside of the service boundary.

Surface Water Quality

San Joaquin River

The primary surface water feature in the City is the San Joaquin River, which generally serves as the City's northern boundary. The San Joaquin River is 366 miles long, making it the largest river in Central California. Much of the water that flows through the San Joaquin River is used for irrigation. The San Joaquin River has been identified by the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) as having numerous beneficial uses, including municipal and domestic water supply, agricultural, industrial, recreational, freshwater and wildlife habitats, and migration and spawning grounds. Water quality in the San Joaquin River is affected by both natural and anthropogenic sources, including soil erosion, stormwater runoff, wastewater discharges, industrial, residential, and agricultural runoff, recreational activity, and flora and fauna. While the segment of the San Joaquin River in the City is not considered substantially impaired, downstream portions of the River throughout the Central Valley and near the Sacramento-San Joaquin Delta are affected by various constituents and pollutants, usually as a result of agricultural runoff; however, the portion of

⁵ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan.

⁶ Fresno Irrigation District (FID). 2022. From 850 to Now. Website: <https://www.fresnoirrigation.com/history>. Accessed July 5, 2017.

⁷ Water Systems Consulting, Inc. 2021. 2020 Urban Water Management Plan. Website: https://www.fresno.gov/publicutilities/wp-content/uploads/sites/16/2021/06/Fresno-2020-UWMP_Public-Draft_2021-06-29.pdf. Accessed July 5, 2022.

the San Joaquin River in Fresno does appear on the California State Water Resources Control Board (State Water Board) 2022 Impaired Water Bodies/303(d) List for invasive species (non-native fish species) and pH levels.⁸

Kings River

The Kings River is also a significant source of surface water for the Central Valley. It is located approximately 25 miles south of the City on the southern border of Fresno County. The Kings River drains from the Sierra Nevada westward toward the City. The river is approximately 126 miles long and mainly supports agriculture and groundwater recharge operations in the Central Valley. Pine Flat Dam/Reservoir supports the regulation of flows from the river. The Kings River provides water to the City and its vicinity via FID infrastructure, including a system of weirs, canals, and channels. The water quality in the Kings River is generally of high quality in its upper reaches due to its origin within the Sierra Nevada mountains. The lower reaches, however, have elevated levels of salinity, molybdenum, toxaphene, chlorpyrifos, and additional unknown toxicities, as listed in the Clean Water Act 303(d) List maintained by the State Water Board.⁹ The likely sources of the contaminants, according to the Water Quality Control Plan for the Tulare Lake Basin, are either surface or subsurface agricultural drainage. The Basin Plan recommends several Best Management Practices (BMPs) to address the water quality issues.

Millerton Lake

Another prominent surface water feature in the Fresno area is Millerton Lake, which is located upstream and to the northeast of Fresno. Millerton Lake was created by the construction of Friant Dam on the San Joaquin River by the United States Bureau of Reclamation (USBR) in 1942. While Millerton's secondary uses include recreation, hydroelectric power generation, and flood control, the primary purpose is the storage of irrigation water for the San Joaquin Valley. Millerton Lake is also included on the 2018 Impaired Water Bodies/303(d) List for mercury.¹⁰

Other Surface Waters

A network of agricultural canals and flood control channels traverse through the City and the Plan Area. Numerous agricultural ponds, recharge basins, and other similar features are also located throughout the City.

Project Site

The Plan Area will be supplied by the same surface water sources from the City's water supply system and, therefore, would be subject to the same surface water quality conditions for potable water supplies.

⁸ California State Water Resources Control Board (State Water Board). 2022 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report). Website: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html. Accessed December 9, 2024.

⁹ Kings Basin Water Authority. 2018. Kings Basin Integrated Regional Water Management Plan.

¹⁰ California State Water Resources Control Board (State Water Board). 2018 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report). Website: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html. Accessed December 9, 2024.

There are a number of FID and other canals and bodies of water located throughout the Plan Area, including Redbank Creek, the Gould Canal, the Gray Colony Canal, Dog Creek, the Mill Canal, the Temperance Canal, the Fancher Creek Canal, the Briggs Canal, the East Branch West Branch Canal, the Hansen Canal, and the Armstrong Canal. A portion of the Redbank Basin is located in the northwestern portion of the Plan Area, and the Fancher Creek Basin is located just outside the northeastern boundary of the Plan Area. No surface water bodies in or near the Plan Area are listed on the 303(d) List.¹¹

Groundwater Basin Hydrology

The City is within the Kings River Subbasin, which, along with six other subbasins, form the San Joaquin Valley Groundwater Basin. The San Joaquin Valley Groundwater Basin is located within the Tulare Lake Hydrologic Region, which spans approximately 10.9 million acres and includes most of Fresno County. The region encompasses the southern one-third of the Central Valley RWQCB. The Kings River Subbasin is generally bounded to the north by the San Joaquin River, to the east by the Sierra Nevada foothills, to the south by the southern fork of the Kings River, and to the west by the Delta-Mendota and Westside Subbasins.¹²

Historically, the City has relied heavily on groundwater pumped from the underground basin and aquifers to meet its water demands. The City has a network of over 270 municipal water wells and operates approximately 202 active municipal supply wells that access groundwater from said basin.¹³ The production capacity from the active wells is approximately 403 mgd, and the total capacity including inactive wells is approximately 487 mgd.¹⁴ The wells are located around the City, and most are directly connected into the water distribution system. The City's water system depended completely on groundwater as a water source until 2004, when the first Surface Water Treatment Facility (SWTF) was commissioned. Today, groundwater is still heavily relied upon as a primary water source for the City; however, the City is working to maximize the use of its surface water supplies to reduce future dependance on groundwater.¹⁵

The City is located within the North Kings Groundwater Sustainability Agency (North Kings GSA), which is working to reach groundwater sustainability in accordance with the Sustainable Groundwater Management Act (SGMA). SGMA requires governments and water agencies of "critically overdrafted" basins to reach sustainability by 2040; the Kings River Subbasin was identified as a critically overdrafted basin. As a result, the City has placed a higher priority on developing its surface water supply and decreasing its reliability on groundwater to allow the basin to recharge. The City actively works to recharge the groundwater basin. As a result of the City's investment in other water supplies, groundwater levels in the City have begun to stabilize.¹⁶

¹¹ California State Water Resources Control Board (State Water Board). 2022 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report). Website: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html. Accessed December 9, 2024.

¹² Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid.

The City replenishes groundwater by three methods: natural recharge, subsurface inflow, and intentional recharge.

Natural recharge occurs as precipitation, irrigation, canal, and/or stream flows infiltrate the soils and seep down to the water table to replenish the aquifer. Per the 2020 UWMP, the Kings Basin Integrated Groundwater and Surface Water Model (IGSM), completed in 2007, provides the best available information on the City's groundwater yield. As such, the annual natural recharge from 1964 to 2004 was determined to be 42,700 AFY; however, this was projected to decline steadily from 2005 to General Plan buildout within the City's SOI due to increased urbanization and development and a reduction in pervious surfaces. It can be noted though that, as future growth areas are annexed, the amount of natural recharge may increase. The UWMP estimated a total of 24,970 acre-feet (AF) of natural recharge for 2020, and projects that natural recharge will total 26,280 AF in the General Plan buildout year of 2035 and 26,790 AF by 2045, assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA.¹⁷

Subsurface recharge occurs from the movement of groundwater from external sources moving into the local aquifer. Subsurface water tends to flow from surrounding areas with a higher groundwater table than the City's into the aquifer within the City's SOI, including the Plan Area. It is likely that the subsurface inflow would increase with future annexation and development as the SOI is built out. Per the 2020 UWMP, net subsurface inflow into the City's SOI was determined to be 64,800 AFY annually for the period of 1964–2004. The UWMP estimated a total subsurface inflow for 2020 of 47,510 AF and projects that the total would reach 54,720 AF in 2035 and 59,530 AF in 2045, assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA.¹⁸

Intentional recharge occurs by directing surface water into the underground aquifer with the use of groundwater recharge basins or wells. Fresno mainly uses recharge basins, which are located throughout the City, in an effort to offset declining groundwater levels and overdraft conditions. The City's primary recharge facility is Leaky Acres, located northwest of the Fresno-Yosemite International Airport. It consists of 26 basins covering approximately 225 acres. Additionally, the City has agreements with the FMFCD and the FID to utilize their facilities (basins, canals, etc.) for additional groundwater recharge activities. According to the 2020 UWMP, the City recharged an average of approximately 60,000 AFY from 2000 to 2019. However, the amount has not historically been consistent and can fluctuate based on available surface water. This amount dropped to 34,700 AF in 2014 and to 19,800 AF in 2015. In 2019 though, the City recharged 82,993 AF, the highest amount within this measurement period. Per the City's 2020 UWMP, the City will plan on increasing the amount of groundwater to be recharged gradually by 540 AFY each year moving forward when possible. During wet years, the City will recharge more water when it is available to help offset potential increased reliance on groundwater during dry years. The UWMP projects a total recharge volume of 60,000 AF starting in 2020, increasing to 68,100 AF in 2035 and 73,500 AF in 2045 during normal water years.

¹⁷ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan, Table 6-1, Components to Groundwater Yield for Normal Years.

¹⁸ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan.

The total groundwater recharge amount for 2020 was 132,480 AF (24,970 AF of natural recharge, 47,510 AF of subsurface inflow, and 60,000 AF of intentional recharge); the total projected groundwater recharge amount for 2035 is 149,100 AF (26,280 AF of natural recharge, 54,720 AF of subsurface inflow, and 68,100 AF of intentional recharge) and for 2045 is 159,820 AF (26,790 AF of natural recharge, 59,530 AF of subsurface inflow, and 73,500 AF of intentional recharge) during normal water years and assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA.¹⁹ Groundwater pumping has been greatly reduced since the activation of the first SWTF in 2004 and has only further declined as a result of a second SWTF; per the 2020 UWMP, groundwater pumping has decreased from 165,200 AFY in 2003 to 55,000 AF in 2020.²⁰ Surface water has allowed the City to reduce its dependance on groundwater as a water supply. Prior to 2004, 100 percent of Fresno's water demand was met with groundwater. In 2004, the City's first SWTF, the NESWTF, was constructed and activated; it provided 10–15 percent of the City's potable water demand from 2005–2014, and 15 percent from 2016–2020. With the addition of the T-3 Water Storage and modular Surface Water Treatment Facility (T-3 SWTF) in 2015 and the SESWTF in 2018, the City was able to provide greater than 50 percent of its potable water supply with surface water in 2019 and 2020.²¹ The City plans on expanding surface water treatment capacities and groundwater recharge activities to maintain the reduction in groundwater reliance.

Plan Area

The City Metropolitan Water Resources Management Plan (Metro Plan) and UWMP include several objectives, goals, and policies to improve and develop water infrastructure as development progresses in the City.²² The critical focal points of the water system development are the implementation of further water conservation measures, installation of new municipal groundwater wells, increased groundwater recharge efforts to bring the City's groundwater pumpage into balance with its recharge rate, maximized use of available surface water, increased use of recycled water for landscape irrigation and other nonpotable uses, and the acquisition of future water supplies when available.

At the time of preparation of this Recirculated Draft PEIR, the City is updating the Metro Plan to include revised and updated recommendations for water supply facilities for the Plan Area. Among these proposed improvements are new municipal groundwater wells to be drilled in the Plan Area, recharge inter-ties to FMFCD basins to facilitate groundwater recharge in the Plan Area, expansion of SWTFs, new water storage and booster pump sites, and new water mains.

Groundwater Quality

Groundwater quality throughout the Tulare Lake Hydrologic Region is generally suitable for most urban and agricultural uses and meets primary and secondary drinking water standards for municipal use. However, local impairments are found in the groundwater supply with high total dissolved solids (TDS), nitrate, arsenic, and organic compounds acting as the primary constituents of

¹⁹ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan, Table 6-1, Components to Groundwater Yield for Normal Years.

²⁰ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan, Figure 6-7, Historic Groundwater Production.

²¹ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan.

²² City of Fresno. 2014. Fresno Metropolitan Water Resources Management Plan Update.

concern within the region. As a single, unconfined aquifer, the groundwater basin within the City has been designated as a Sole Source Aquifer as authorized by Section 14246 of the Federal Safe Drinking Water Act of 1974.²³ This designation means that Fresno is dependent on a single source of groundwater and that this sole source must be protected from contamination.

While the groundwater supply within the Kings River Subbasin generally meets drinking water standards, extensive contamination occurs throughout the City with eight major contaminant plumes present. Of the City's 270 groundwater wells, 60 of the active wells currently have wellhead treatment systems.²⁴ Several different types of pollutants have contaminated the groundwater in portions of the City. Major contaminant plumes include dibromochloropropane (DBCP), ethylene dibromide (EDB), trichloropropane (TCP), other volatile organic compounds (VOCs) like trichlorethylene (TCE), tetrachloroethylene (PCE), nitrate manganese, radon, chloride, and iron. Nitrate, pesticides, and nutrients in agricultural drainage are currently found within much of the City's groundwater supply, and their levels exceed some drinking water standards established by the State. While nitrates may occur naturally, their presence is often attributed to anthropogenic reasons. Common sources of nitrate contamination include runoff and leaching from fertilizer use, leaching from septic tanks and sewage, and erosion of natural deposits.²⁵

Another major problem facing the City's groundwater supply is the presence of DBCP in groundwater wells. This fumigant was widely used in the 1960s to control nematodes in vineyards and is now present in down gradient groundwater wells. TCP, a manmade chemical associated with pesticide products, has also been detected in several of the City's municipal wells. As of 2020, the City has received settlements in a number of lawsuits related to these contaminants and has constructed wellhead treatment systems and implemented blending plans for a number of affected wells.²⁶

Plan Area

While there are no wells currently in operation within the Plan Area, several wells adjacent to the Plan Area have active wellhead treatment systems for DBCP and TCP contaminants. There are also portions of TCP (5 parts per trillion [ppt]), DBCP (0.2 parts per billion [ppb]) and nitrate (5 milligrams per liter [mg/L]) contaminant plumes within the Plan Area on the western border near State Route (SR) 180. It is expected that some portion of any new groundwater wells to be installed in the Plan Area will require wellhead treatment systems for various contaminants.

Stormwater Runoff

Stormwater Collection System

Stormwater drainage facilities within the Fresno-Clovis Metropolitan area are planned, implemented, operated, and maintained by the FMFCD. The storm drain facilities are documented in the Storm Drainage and Flood Control Master Plan (Storm Drain Master Plan), which is developed and updated by FMFCD. FMFCD's Storm Drain Master Plan divides the service area into many local drainage areas of 1–2 square miles throughout Fresno. Drainage area boundaries are determined by

²³ United States Environmental Protection Agency (EPA). 2021. Summary of the Safe Drinking Water Act 42 USC Section 300f *et seq.* (1974). Website: <https://www.epa.gov/laws-regulations/summary-safe-drinking-water-act>. Accessed June 10, 2022.

²⁴ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan.

²⁵ City of Fresno. 2023. Water Quality Annual Report 2023.

²⁶ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan .

geographic and topographic features and the economics of providing storm drainage service to the watershed. Storm drainage facilities within a drainage area typically consist of storm drain inlets, pipelines, retention basins, urban detention (water quality) basins, and stormwater pump stations. Surface grading improvements such as streets, curbs, gutters, and valley gutters are part of the City of Fresno infrastructure, but the general grading of these features is governed by the Storm Drain Master Plan to provide a coherent implementation of drainage within Fresno.

All inlets, pipes, and pump stations within each drainage area are maintained by the FMFCD. The gutters, along with public streets and sidewalks, are maintained by the City's Street Maintenance Division. It is assumed that this maintenance agreement will remain in place for the foreseeable future. The FMFCD's Storm Drain Master Plan includes 165 adopted or proposed drainage areas, most served by a retention or detention facility.²⁷ FMFCD basins have been sized for capacities not less than 60 percent of average annual runoff;²⁸ FMFCD allows a 20 percent change in volume before basins need to be resized.

Stormwater collection in the City begins with street gutters that collect and convey stormwater runoff to storm drain inlets. The runoff is collected in these inlets and delivered to FMFCD's pipe networks, pump stations, and infiltration basins for groundwater recharge. Most runoff is discharged into recharge basins, but during heavy rainfall events, excess runoff overflows into a system of relief channels and canals that discharge to the San Joaquin River, its tributary streams, local agricultural canals, and FID facilities.

Storm drain inlets are located at low points in the topography as determined by the Storm Drain Master Plan. Pipeline alignments and sizes are also shown on the Storm Drain Master Plan. Pipeline alignments are subject to change as development proposals are put forward by development projects. Retention basin and urban detention basin locations and sizes are part of the Storm Drain Master Plan as well. Basins are sited in the topographic low point of the drainage area. All of the storm drainage pipelines within the drainage area are directed to the basin for that area. Retention basins store and percolate stormwater from the drainage area if time between storms permits; otherwise, the water is pumped to designated irrigation canals. Urban detention basins provide quiescent (still) conditions for the removal or settling out of suspended solids prior to discharge of the stormwater to the San Joaquin River.

The Fresno-Clovis Metropolitan area consists of drainage areas that are completed (e.g., all Master Planned facilities are constructed and functional) or in the process of being completed (e.g., portions of the retention basin, pipelines, and inlets are constructed and other portions are not). For the drainage areas that are in the planning stage, the planning area may be planned and documented and the retention basin land may be purchased, but no construction has occurred; other areas may not have the land purchased for the basins yet. Implementation of the Storm Drain Master Plan occurs in response to development activity in newly developing areas and through Capital Improvement Projects (CIPs) in previously developed areas.

²⁷ Fresno Metropolitan Flood Control District (FMFCD). 2016. 2016 District Services Plan.

²⁸ Ibid.

Plan Area

In accordance with the Storm Drain Master Plan and other planning documents, the FMFCD is developing improvements for the Plan Area for storm drain facilities. The Plan Area encompasses all or part of the following existing drainage areas: BG, BL, BM, BS, CS, DS and, DV. Proposed drainage areas for SEDA include DT, DU, DW, DX, DY, and DZ. Most of the existing drainage areas include existing storm drain collection facilities, but the proposed drainage areas generally have no existing storm drain facilities. Areas DS and DV are the exceptions in that they are existing drainage areas with basins but have not been built out to Master Plan conditions. FMFCD improvements include storm drain inlets and piping, which are being analyzed and developed in conjunction with the proposed land uses for the Plan Area. Those portions of the Plan Area encompassed in existing drainage areas include Master Planned utilities designed by FMFCD.

There are seven existing basins contributing to stormwater collection for the Plan Area and six proposed basins within the Plan Area. There are also two existing basins outside of the Plan Area that are not part of existing drainage areas, including the Redbank Basin and the Fancher Creek Basin, which may contribute to additional drainage capacity; however, these two basins were not considered in the analyses completed as part of the Storm Drain Technical Study prepared for this Recirculated Draft PEIR (Appendix I). FMFCD basins are designed for a capacity not less than 60 percent of average annual runoff. Per the FMFCD, the proposed drainage areas for SEDA have not been adopted yet, and the basin locations have not been finalized. Table 3.10-1 shows the capacities of both existing basins that serve the Plan Area and proposed basins that will serve the Plan Area.

Table 3.10-1: Drainage Areas and Basin Capacities

Drainage Area Designation	Drainage Area Size ^A (acres)	Basin Volume ^B (AF)	Basin Design Use	Basin Type	Relief Line to FID Facility
Existing Drainage Areas/Basins					
BG	753.61	232.1	Nonresidential	Recharge	Yes; Washington Colony Canal
BL	783.63	301.1	Residential	Recharge	No; relief line to Basin BH
BM	1,519	390.4	Residential	Dual Use	No; relief line to Basin BH
BS	1,190.39	401.3	Nonresidential	Recharge	Yes; Mill Ditch
CS	860.99	346.5	Nonresidential	Recharge	Yes; Washington Canal
DS ^C	1,958.14	1,383.3	Residential	Undetermined ^D	Yes; Mill Ditch and Redbank Basin
DV ^C	505	230.0	Nonresidential	Undetermined ^D	Yes; Briggs Canal and Fancher Creek
Proposed Drainage Area/Basins					
DT	975.46	232.4	Residential	Undetermined ^D	Yes; Fancher Creek

Drainage Area Designation	Drainage Area Size ^A (acres)	Basin Volume ^B (AF)	Basin Design Use	Basin Type	Relief Line to FID Facility
DU	1,268.94	323.8	Residential	Undetermined ^D	No; relief line to Basin DV
DW	749.99	233.9	Residential	Undetermined ^D	Undetermined
DX	877.9	304.5	Residential	Undetermined ^D	Yes; Briggs Canal
DY	771	295.2	Nonresidential	Undetermined ^D	No; relief line to Basin DZ
DZ	694.5	263.6	Nonresidential	Undetermined ^D	No; relief line to Basin BG

Notes:

AF = acre-feet

FID = Fresno Irrigation District

FMFCD = Fresno Metropolitan Flood Control District

GIS = Geographic Information System

^A Drainage area sizes obtained from GIS Shape Files provided by FMFCD.

^B Basin volumes obtained from H&H calculation sheets provided by FMFCD.

^C Existing drainage area and basin but not yet built out.

^D Approved use of proposed basins will be determined via coordination between FMFCD and City.

Source: Blair, Church & Flynn Consulting Engineers. SEDA Specific Plan Storm Drain Technical Study. June 10, 2022.

Flooding and Inundation

The City of Fresno is located in the alluvial fans of numerous foothill stream sand creeks that drain the western slope of the Sierra Nevada foothills. These streams include Big Dry Creek, Alluvial Drain, Pup Creek, Dog Creek, Redbank Creek, Mud Creek, and Fancher Creek. Numerous smaller, unnamed drainage courses also drain into the City from the rural areas east of Fresno.

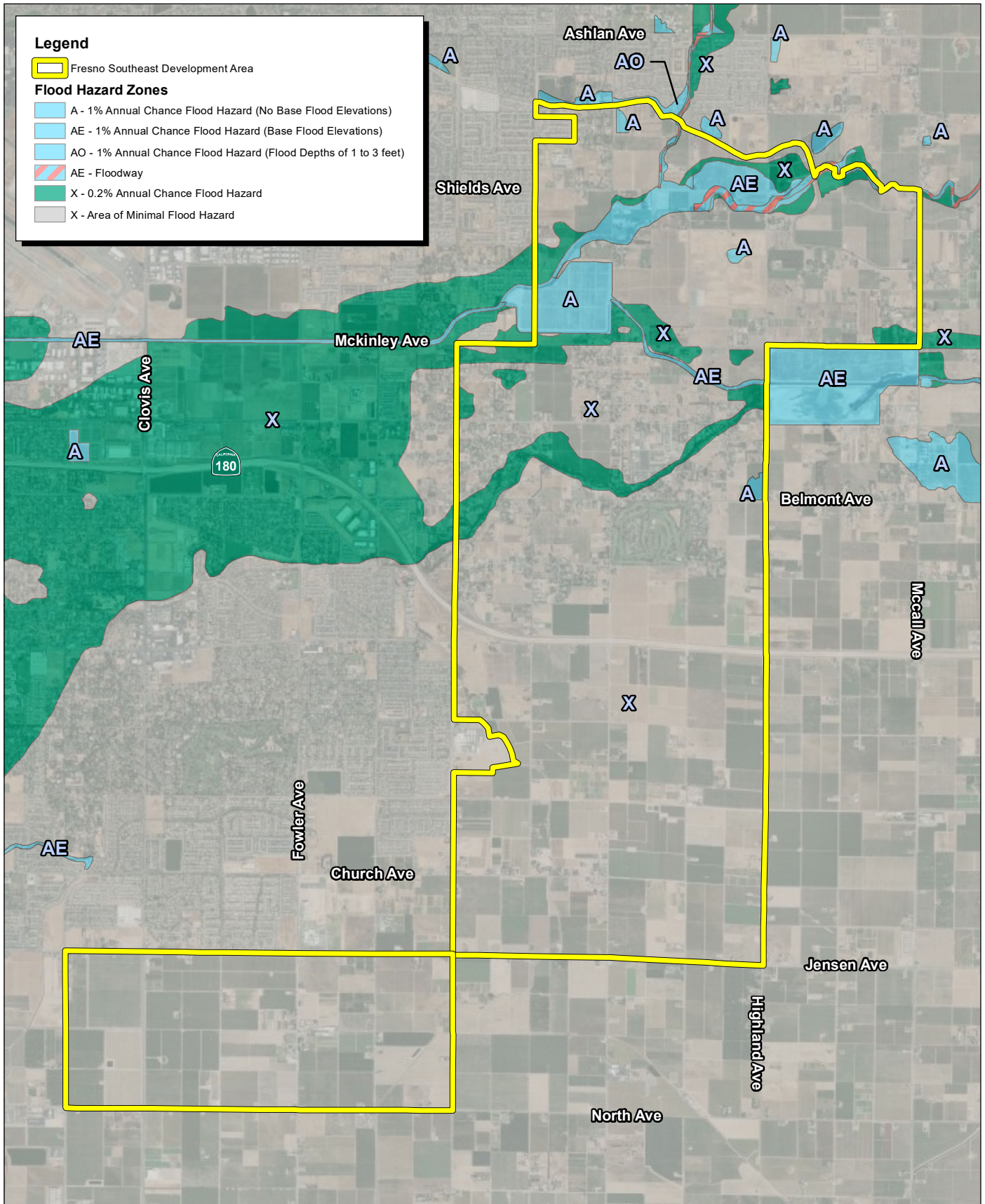
Based on a review of the FEMA Flood Insurance Rate Maps (FIRMs) for the City of Fresno,²⁹ there are areas that are subject to the 100-year flood frequency flood zone as shown in Exhibit 3.10-1. The primary area that is subject to the 100-year flood zone is along the San Joaquin River below the bluffs. There are additional areas in the vicinity of the Fresno International Airport, the SEDA Specific Plan Area in the vicinity of the Redbank Creek Dam, adjacent to SR-180 east of Clovis Avenue, and within an industrial area east of SR-99, south of California Avenue and north of Jensen Avenue. In addition, various detention basins are subject to the 100-year flood zone.

Project Site

According to the FIRMs that include SEDA, a majority of the SEDA Specific Plan Area is outside the 100-year flood zones; most areas are located within Zone X (unshaded) (outside the 500-year floodplain with minimal risk of flooding) as shown in Exhibit 3.10-1.

²⁹ Federal Emergency Management Agency (FEMA). 2021. National Flood Hazard Layer. Website: <https://www.fema.gov/flood-maps/national-flood-hazard-layer>. Accessed June 13, 2022.

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Source: ESRI Aerial Imagery, Fresno County, FEMA National Flood Hazard Layer (NFHL)

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Exhibit 3.10-1 Flood Hazard Map

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However, several areas in the northern portion of SEDA (north of SR-180) are within zones of higher flood chances, including Zones X (shaded) (between the 100-year and 500-year floodplain with moderate risk of flooding); Zone A (Special Flood Hazard Area [SFHA] within the 100-year floodplain with high risk of flooding, but base flood elevations have not been determined); Zone AE (SFHA within the 100-year floodplain with high risk of flooding and with determined base flood elevations); and Zone A/AE Regulatory Floodplains (SFHA with high risk of flooding, the channel of a waterway and adjacent area which must be reserved to discharge base flood without increasing surface water elevation). These areas are mainly adjacent to existing rivers, creeks, canals, or detention basins.

Per the FEMA FIRM, areas surrounding and along the Fancher Creek are within Zone X (shaded), the area containing the Redbank Detention Basin is within Zone A, areas surrounding and along the Mill Ditch and Redbank Creek are within Zone AE, and a portion of the Redbank Creek along the northern SEDA border is defined as a Regulatory Floodplain.

The Plan Area is located approximately 6 miles south of Big Dry Creek Dam. An expanded drain was installed at the base of the downstream side of the dam in 2014 to prevent potential damage to the dam from seepage under the dam. The dam is also inspected annually by the California Department of Water Resources (DWR) Division of Safety of Dams. Considering recent improvements and regular maintenance of the dam, the potential for dam failure is considered slight, and buildout of the SEDA Specific Plan would not exacerbate flood hazards due to dam inundation. No areas in the Plan Area are mapped as protected from 100-year floods by levees, and thus buildout of the SEDA Specific Plan would not place people or structures in the Plan Area at risk of flooding due to levee failure.

3.10.3 - Regulatory Framework

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 project or variant. The CWA established 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 an 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 project are listed in the Central Valley RWQCB Basin Plan.

Section 303—Water Quality Standards and Total Maximum Daily Loads

Section 303(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 (33 USC § 1251 *et seq.*). 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 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 on a daily basis 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. 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 San Joaquin River (dissolved oxygen, diazinon and chlorpyrifos, salt and boron, and selenium), the Sacramento-San Joaquin Delta (methylmercury, diazinon and chlorpyrifos), Cache Creek/Bear Creek/Harley Gulch (mercury), Clear Lake (mercury and nutrients), Grasslands Marshes (selenium), Sacramento and Feather Rivers (diazinon and chlorpyrifos), Sacramento County Urban Creeks (diazinon and chlorpyrifos), Sacramento River (cadmium, copper, and zinc), Salt Slough (selenium), Stockton Urban Waterbodies (pathogen), and Central Valley TMDLs (pesticides and pyrethroid).³⁰

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

³⁰ Central Valley Regional Water Quality Control Board (Central Valley RWQCB). 2022. Total Maximum Daily Loads (TMDL) and Impaired Water Bodies 303(d) List. Website: https://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/. Accessed June 13, 2022.

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 (33 USC § 1251 *et seq.*). 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 the 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).

Section 401—Water Quality Certification

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 (33 USC § 401 *et seq.*) 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 (40 CFR 131.12) 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 303I(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 substantial 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.
- A statement indicating whether the action conforms to applicable State or local floodplain protection standards.

National Flood Insurance and Flood Disaster 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.³¹ 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 special flood hazard areas. Special flood hazard areas are defined as areas that have a 1 percent chance of flooding in a given year.

FEMA also administers the National Flood Insurance Program (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)³² 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 Water Quality Control 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.

National Pollutant Discharge Elimination System

The NPDES³³ permits all involve similar processes, which include submitting notices of intent for discharging to receiving waters and implementing BMPs to minimize those discharges. The Central

³¹ National Flood Insurance Act of 1968 (1968) and Flood Disaster Protection Act of 1973 (1973). (1968, 1973). Website: <https://www.fema.gov/sites/default/files/2020-07/national-flood-insurance-act-1968.pdf>. Accessed July 6, 2022.

³² California Porter-Cologne Water Quality Act, California Water Code Div. 7 § 13000, *et seq.* 1969.

³³ United States Environmental Protection Agency (EPA). National Pollutant Discharge Elimination System (NPDES). 1972.

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 one acre of land or more. Construction activities subject to the general construction activity 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, the project applicant must file a notice of intent with the State Water Board to obtain coverage under the permit; prepare a Stormwater 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 with 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.”

California Toxics Rule and State Implementation Policy

The CTR (40 CFR § 131.38), 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 303I 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.

Local

Fresno General Plan

The General Plan contains the following goals, policies, and objectives relevant to the provision of drainage and flood control service and facilities:

Parks, Open Space, and Schools Element

Policy POSS-6-b Effects of Stormwater Discharge. Support efforts to identify and mitigate cumulative adverse effects on aquatic life from stormwater discharge to the San Joaquin River.

- Avoid discharge of runoff from urban uses to the San Joaquin River or other riparian corridors.
- Approve development on sites having drainage (directly or indirectly) to the San Joaquin River or other riparian areas only upon a finding that adequate measures for preventing pollution of natural bodies of water from their runoff will be implemented.

- Periodically monitor water quality and sediments near drainage outfalls to riparian areas. Institute remedial measures promptly if unacceptable levels of contaminant(s) occur.

Noise and Safety Element

- Objective NS-2** Minimize risks of property damage and personal injury posed by geologic and seismic risks.
- Policy NS-2-b** **Soil Analysis Requirement.** Identify areas with potential geologic and/or soils hazards, and require development in these areas to conduct a soil analysis and mitigation plan by a registered civil engineer (or engineering geologist specializing in soil geology) prior to allowing on-site drainage or disposal for wastewater, stormwater runoff, or swimming pool/spa water.
- Objective NS-3** Minimize the risks to property, life, and the environment due to flooding and stormwater runoff hazards.
- Policy NS-3-a** **Stormwater Drainage and Flood Control Master Plan.** Support the full implementation of the FMFCD Storm Drainage and Flood Control Master Plan, the completion of planned flood control and drainage system facilities, and the continued maintenance of stormwater and flood water retention and conveyance facilities and capacities. Work with the FMFCD to make sure that its Storm Drainage and Flood Control Master Plan is consistent with the General Plan.
- Policy NS-3-b** **Curb and Gutter Installation.** Coordinate with Fresno Metropolitan Flood Control District (FMFCD) to install curbing, gutters, and other drainage facilities with priority to existing neighborhoods with the greatest deficiencies and consistent with the Storm Drainage and Flood Control Master Plan.
- Policy NS-3-c** **Dual Use Facilities.** Support multiple uses of flood control and drainage facilities as follows:
- Use, wherever practical, FMFCD facilities for groundwater management and recharge; and
 - Promote recreational development of ponding basin facilities located within or near residential areas, compatible with the stormwater and groundwater recharge functions.
- Policy NS-3-e** **Pollutants.** Work with FMFCD to prevent and reduce the existence of urban stormwater pollutants pursuant to the requirements of the National Pollution Discharge Elimination Systems Act.
- Policy NS-3-f** **Flooding Emergency Response Plans.** Work with responsible agencies to update emergency dam failure inundation plans, evacuation plans and other emergency

response plans for designated flood-prone areas, including the San Joaquin River bottom.

- Policy NS-3-g** **Essential Facilities Siting Outside of Floodplains.** Avoid siting emergency response and essential public facilities, such as fire and police stations, within a 100-year floodplain, unless it can be demonstrated that the facility can be safely operated and accessed during flood events.
- Policy NS-3-h** **Runoff Controls.** Implement grading regulations and related development policies that protect area residents from flooding caused by urban runoff produced from events that exceed capacity of the Storm Drainage and Flood Control Master Plan system of facilities. Place all structures and/or floodproofing in a manner that does not cause floodwaters to be diverted onto adjacent property, increase flood hazards to other property, or otherwise adversely affect other property.
- Policy NS-3-i** **New Development Must Mitigate Impact.** Require new development to not significantly impact the existing storm drainage and flood control system by imposing conditions of approval as project mitigation, as authorized by law. As part of this process, closely coordinate and consult with the FMFCD to identify appropriate conditions that will result in mitigation acceptable and preferred by FMFCD for each project.
- Policy NS-3-k** **100-Year Floodplain Policy.** Require developers of residential subdivisions to preserve those portions of development sites as open space that may be subject to 100-year flood events, unless the flood hazard can be substantially mitigated by development project design.
- Policy NS-3-l** **200-Year Floodplain Protection.** Promote flood control measures that maintain natural conditions within the 200-year floodplain of rivers and streams and, to the extent possible, combine flood control, recreation, water quality, and open space functions. Discourage construction of permanent improvements that would be adversely affected by periodic floods within the 200-year floodplain, particularly in the San Joaquin River bottom.
- Policy NS-3-m** **Flood Risk Public Awareness.** Continue public awareness programs to inform the general public and potentially affected property owners of flood hazards and potential dam failure inundation. Remind households and businesses located in flood-prone areas of opportunities to purchase flood insurance.

Resource Conservation and Resilience Element

- Objective RC-6** Ensure that Fresno has a reliable, long-range source of drinkable water.

Policy RC-6-a	Regional Efforts. Support cooperative, multi-agency regional water resource planning efforts and activities on developing and implementing the Upper Kings Basin Integrated Regional Water Management Plan.
Policy RC-6-b	Water plans. Adopt and implement ordinances, standards, and policies to achieve the intent of the City of Fresno Urban Water Management Plan, Fresno-Area Regional Groundwater Management Plan, and City of Fresno Metropolitan Water Resources Management Plan to ensure a dependable supply of water.
Policy RC-6-c	Land Use and Development Compliance. Ensure that land use and development projects adhere to the objective of the Fresno Metropolitan Water Resources Management Plan to provide sustainable and reliable water supplies to meet the demand of existing and future customers through 2025.
Policy RC-6-d	Recycled Water. Prepare, adopt, and implement a City of Fresno Recycled Water Master Plan.
Policy RC-6-e	Protect Aquifer. Oppose urban development in unincorporated areas that are not served by a wastewater treatment/management system capable of preventing the buildup of compounds that would degrade the aquifer.
Policy RC-6-f	Regulate Sewage Disposal Facilities. Oppose development of new sewage disposal facilities either within the Planning Area or upgradient (north and east) of the Planning Area, unless the treatment facilities produce effluent that: <ul style="list-style-type: none">• Will not degrade the aquifer in the long term;• Will not introduce contaminants into surface water that would negatively affect its potential economic use for drinking water;• Will not deleteriously affect downstream agricultural and urban uses; and• Will not degrade sensitive riparian habitat.
Policy RC-6-g	Protect Recharge Areas. Continue to protect areas of beneficial natural groundwater recharge by preventing uses that can contaminate soil or groundwater.
Policy RC-6-h	Conditions of Approval. Include in the development code standards for imposing conditions of approval for development projects to ensure long-term maintenance of adequate clean water resources. Require findings that adequate water supply must exist prior to any discretionary project approval for residential and commercial development requiring annexation, as required by law.
Policy RC-6-i	Natural Recharge. Support removal of concrete from existing canals and change the practice of lining new and existing canals with concrete to allow for natural recharge.

- Objective RC-7** Promote water conservation through standards, incentives and capital investments.
- Policy RC-7-a** **Water Conservation Program Target.** Maintain a comprehensive conservation program to help reduce per capita water usage in the City’s water service area to 243 gallons per capita per day (GPCD) by 2020 and 190 GPCD by 2035, by adopting conservation standards and implementing a program of incentives, design and operation standards, and user fees.
- Support programs that result in decreased water demand, such as landscaping standards that require drought-tolerant plants, rebates for water conserving devices and systems, turf replacement, xeriscape landscape for new homes, irrigation controllers, commercial/industrial/institutional water conserving programs, prioritized leak detection program, complete water system audit, landscape water audit and budget program, and retrofit upon resale ordinance.
 - Implement the U.S. Bureau of Reclamation Best Management Practices for water conservation as necessary to maintain the City’s surface water entitlements.
 - Adopt and implement policies in the event that an artificial lake is proposed for development.
 - Work cooperatively toward effective uniform water conservation measures that would apply throughout the Plan Area.
 - Expand efforts to educate the public about water supply issues and water conservation techniques.
- Policy RC-7-c** **Best Practices for Conservation.** Require all City facilities and all new private development to follow U.S. Bureau of Reclamation Best Management Practices for water conservation, as warranted and appropriate.
- Policy RC-7-d** **Update Standards for New Development.** Continue to refine water saving and conservation standards for new development.
- Policy RC-7-e** **Retrofit City Facilities and Consider Incentives Programs to Encourage Retrofitting of Other Existing Public and Private Residential and Nonresidential Facilities and Sites.** Reduce water use in municipal buildings and City operations by developing a schedule and budget for the retrofit of existing municipal buildings with water conservation features, such as auto shut-off faucets and water saving irrigation systems. Prepare a comprehensive incentive program for other existing public and private residential and nonresidential buildings and irrigation systems.
- Policy RC-7-f** **Implementation and Update Conservation Program.** Continue to implement the City of Fresno Water Conservation Program, as may be updated, and periodically update restrictions on water uses, such as lawn and landscape watering and the

filling of fountains and swimming pools, and penalties for violations. Evaluate the feasibility of a 2035 conservation target of 190 GPCD in the next comprehensive update of the City of Fresno Water Conservation Program.

Policy RC-7-g **Educate on State Requirements.** Educate the residents and businesses of Fresno on the requirements of the California Water Conservation Act of 2009.

Policy RC-7-h **Landscape Water Conservation Standards.** Refine landscape water conservation standards that will apply to new development installed landscapes, building on the State Model Water Efficient Landscape Ordinance and other State regulations.

- Evaluate and apply, as appropriate, augmented xeriscape, “waterwise,” and “green gardening” practices to be implemented in public and private landscaping design and maintenance.
- Facilitate implementation of the State’s Water Efficient Landscape Ordinance by developing alternative compliance measures that are easy to understand and observe.

Public Utilities and Services Element

Objective PU-8 Manage and develop the City’s water facilities on a strategic timeline basis that recognizes the long life cycle of the assets and the duration of the resources, to ensure a safe, economical, and reliable water supply for existing customers and planned urban development and economic diversification.

Policy PU-8-c **Conditions of Approval.** Set appropriate conditions of approval for each new development proposal to ensure that the necessary potable water production and supply facilities and water resources are in place prior to occupancy.

Policy PU-8-f **Water Quality.** Continue to evaluate and implement measures determined to be appropriate and consistent with water system policies, including prioritizing the use of groundwater, installing wellhead treatment facilities, constructing aboveground storage and surface water treatment facilities, and enhancing transmission grid mains to promote adequate water quality and quantity.

Policy PU-8-g **Review Project Impact on Supply.** Mitigate the effects of development and Capital Improvement Projects on the long-range water budget to ensure an adequate water supply for current and future uses.

County of Fresno Revised 2000 General Plan

Goal PF-E To provide efficient, cost-effective, and environmentally sound storm drainage and flood control facilities that protect both life and property and to divert and retain stormwater runoff for groundwater replenishment.

- Policy PF-E.1 Flood Control Coordination.** The County shall coordinate with the agencies responsible for flood control or storm drainage to assure that construction and acquisition of flood control and drainage facilities are adequate for future urban growth authorized by the County General Plan and city general plans.
- Policy PF-E.4 Storm Drainage System Capacity.** The County shall encourage the local agencies responsible for flood control or storm drainage to require that storm drainage systems be developed and expanded to meet the needs of existing and planned development.
- Policy PF-E.10 Drainage Facility Design.** In growth areas within the jurisdiction of a local agency responsible for flood control or storm drainage, the County shall encourage that agency to design drainage facilities as if the entire areas of service were developed to the pattern reflected in the adopted general plans to assure that the facilities will be adequate as the land use intensifies.

Fresno Southeast Development Area Specific Plan

The Fresno SEDA Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to hydrology and water quality:

Open Space, Schools, and Public Facilities

Objective OS-2 Create and maintain an open space network that serves multiple purposes, including recreation, stormwater management, community farming, and environmental preservation.

Policy OS-2.3 Stormwater Management Features. Maximize the use of green stormwater management infrastructure—such as ponds, basins, swales, and other low-impact systems—within the open space system.

- Coordinate with Fresno Metropolitan Flood Control District (FMFCD) to incorporate green infrastructure within City parks and trails.

Objective OS-14 Provide water, stormwater, and wastewater infrastructure necessary to serve development in the SEDA.

Policy OS-14.1 Provision of Water, Stormwater, and Wastewater Infrastructure. Provide water, stormwater, and wastewater infrastructure in accordance with the policies of the Greenhouse Gas Reduction and Conservation Chapter.

Greenhouse Gas Reduction and Conservation

Objective RC-2 Integrate water supply, treatment and delivery, and flood control and stormwater planning in the Southeast Development Area.

Policy RC-2.2 Shared Water Resources and Infrastructure. Develop methods and systems to share water resources and infrastructure to capture the highest possible value for all planning, water delivery, and water-using agencies.

Objective RC-3 Promote water conservation and the long-term sustainability of water resources within the Southeast Development Area.

Policy RC-3.2 Site and Building Efficiency Standards from Water Use. Green building standards contain a spectrum of strategies to conserve water, including site measures to encourage the planting of species that require minimal water. All new construction in the SEDA is required to meet existing local and State laws with regard to water conservation and any additional measures needed locally to respond to drought conditions as determined by the City of Fresno Department of Public Utilities.

Policy RC-3.3 Water Recycling. Use treated wastewater for irrigation and other uses, consistent with applicable regulations, to minimize the required surface and groundwater needs of SEDA homes and businesses.

- **Public Facilities:** Require the use of tertiary-treated wastewater to irrigate parks, golf courses, and public landscaping, as specified in the Open Space, Schools and Public Facilities Chapter.
 - **Municipal purple pipe.** Establish a site- or district-wide purple pipe system that conveys recycled water.
 - **Water treatment facilities.** Available to serve the SEDA, the Southeast Service Water Treatment Facility was constructed in 2018 and is designed with the latest energy conservation and renewable energy technology.
- **Commercial Landscaping:** Require the use of treated wastewater to irrigate commercial landscaping, adhering to the standards included in the California Code of Regulations, Title 22.
- **Residential Landscaping:** Where appropriate, encourage the use of tertiary-treated wastewater to irrigate residential landscaping. Specific policy considerations should be addressed in the pending SEDA Infrastructure Financing Plan and EIR-related water infrastructure planning tasks.
- **Small Farms and Community Farming:** Use secondary- and tertiary-treated wastewater for agricultural irrigation in the SEDA and within the immediate vicinity, consistent with applicable laws and regulations. Specific policy considerations should be addressed in the pending SEDA Infrastructure Financing Plan and EIR-related water infrastructure planning tasks.

Policy RC-3.4 Implementation and Monitoring. Support and monitor water conservation policies and programs. Developer shall abide by all State and local requirements for water use efficiency standards.

Objective RC-4 Ensure that there will be no adverse effects on regional groundwater levels by minimizing groundwater extraction and replenishing groundwater used to serve the Southeast Development Area. Maximize multiple uses of open space by encouraging new recharge facilities to be accessible to the public.

Policy RC-4.1 Minimizing Groundwater Extraction. Use available surface water supplies to meet as much of the SEDA's potable water demand as possible, limiting groundwater extraction to extreme periods. The pending SEDA Infrastructure Financing Plan shall address this issue in detail.

Policy RC-4.2 Replacement of Extracted Groundwater. The North Kings Groundwater Sustainability Plan (approved in 2019) illustrates the decrease in groundwater levels in the region as a result of pumping. All groundwater drawn to serve development in the SEDA shall be replaced with at least an equal volume via infiltration, pumping, or other means. Recharge need not necessarily occur the same year as withdrawals, however, over time, total recharge must at least match total withdrawals. Recharge and withdrawals need not occur within the same groundwater aquifer but must be within the same groundwater basin. The pending SEDA Infrastructure Financing Plan shall address this issue in detail.

Policy RC-4.3 Maximizing Groundwater Recharge. Establish integrated systems within the SEDA open space network to maximize recharge using stormwater, treated wastewater, and excess surface water supplies. Facilitate increased porosity and stormwater recharge through the use of porous conveyance methods such as bioswales, naturalized channels, and layered basins. Recharge and related systems shall be addressed in the SEDA Infrastructure Financing Plan.

Policy RC-4.4 Utilization of Recreation and Open Spaces as Groundwater Recharge Areas. Support recreation opportunities with a range of parks and multiuse trails by establishing joint-use agreements with Fresno Metropolitan Flood Control District to allow access to storm drainage/recharge basins for recreational use, when appropriate (see the Open Space, Schools and Public Facilities Chapter).

Objective RC-5 Protect surface and groundwater supplies from major sources of pollution.

Policy RC-5.1 Stormwater Runoff. Implement stormwater management practices that minimize stormwater runoff impacts on the Tulare Lake Watershed.

- **Compact Development:** Limit impervious cover by clustering new, higher density development within the SEDA, directing growth away from undeveloped portions of the watershed.
 - **Compact development.** Reduce the building footprint and overall impervious surface in order to minimize lot coverage on a per unit basis.
 - **Parking demand management.** Reduce the demand for parking stalls to lower the amount of impervious surface (and environmental impacts).

- **Low Impact Development Practices:** Implement development practices such as natural conveyance, bioswales, raingardens and xeriscape that minimize, slow, and filter street runoff and remove pollutants, lowering peak volume and reducing the size and cost of stormwater infrastructure.

Policy RC-5.2 Hazardous Materials and Pesticide Reduction. Prevent contamination of the groundwater table and surface water resources and discourage all pesticide use for agricultural and landscaping uses within the SEDA.

- **Signage:** Install appropriate signage to deter the discharge of hazardous materials into storm drains.
- **Pollution Prevention:** Provide information to SEDA residents on appropriate ways to dispose of hazardous materials and chemicals.
- **Pesticide Reduction:** Discourage all pesticide use for agricultural and landscaping uses within the SEDA.
- **Remediation:** Encourage rapid clean up of contaminated groundwater consistent with applicable laws and regulations.

Policy RC-5.3 Construction Erosion.

- **Erosion and Sedimentation Control Plan:** Require all construction projects to create and implement a plan using State and local Best Management Practices for erosion and sedimentation control.
- **Runoff Control:** Prevent loss of soil by stormwater runoff and sedimentation of storm sewers or receiving streams.

Objective RC-6 Develop sufficient wet utility infrastructure to meet the demand created by new development within the Southeast Development Area, applying cost-effective and low-impact strategies to the extent possible.

Policy RC-6.1 Water Supply and Delivery. Evaluate the potential surface water, groundwater resources and infrastructure needs necessary to meet the Southeast Development Area demand. Assessments shall be included in the pending SEDA Infrastructure Financing Plan and EIR-related water infrastructure planning tasks.

- **Site and Development-Level Water Supply:** Utilizing the pending SEDA Infrastructure Financing Plan as a basis, establish estimates for water supply and demand for all development proposals, reducing demand (as appropriate) through site design and efficiency measures.
- **Delivery Systems:** Proposed water supplies and delivery systems shall be identified at the time of development project approval to the satisfaction of the City of Fresno. Systems must work within the schematic designs established in the pending EIR-related water infrastructure planning tasks, and the SEDA Infrastructure Financing Plan.

- **Water demand reductions.** The City of Fresno and the developer or builder will identify specific demand reduction measures required for the development proposal to move forward. Technical assistance will be provided by the City as needed.
- **Detailed engineering.** Infrastructure planning and engineering will be conducted with the proposed demand reduction factors included.

Policy RC-6.3 Flood Control and Stormwater Management. Evaluate and provide infrastructure to minimize community flood risk, enhance water quality, and provide locations for active recreation.

- **Sub-Area or Development Proposal Delivery:** Proposed stormwater systems shall be identified at the time of development project approval to the satisfaction of the City of Fresno. Systems must work within the requirements established in the pending EIR-related water infrastructure planning tasks and the SEDA Infrastructure Financing Plan.
- **Stormwater runoff reductions.** The City of Fresno and the developer will identify specific reduction measures required for the development proposal to move forward.
- **Detailed engineering.** Infrastructure planning and engineering will be conducted with the proposed demand reduction factors included.

City of Fresno Municipal Code

Fresno Municipal Code, Chapter 6, Municipal Services and Utilities, Article 7, Urban Storm Water Quality Management and Discharge Control, includes provisions regarding stormwater discharge for the City. The purpose of the Storm Water Quality Management and Discharge Control Ordinance is to ensure the health, safety, and general welfare of citizens and protect the water quality of water courses and water bodies in accordance with the CWA by reducing pollutants in urban stormwater discharges to the maximum practicable extent and by prohibiting non-stormwater discharges to the storm drain system.

Chapter 11, Building Permits and Regulations, Article 6, Fresno Flood Plain Ordinance, establishes methods of reducing flood losses by: restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards or flood heights or velocities; requiring that uses vulnerable to floods be protected against flood damage at the time of initial construction; controlling filling, grading, dredging, and other development which may increase flood damage; preventing or regulating the construction of flood barriers which will unnaturally divert flood water or which may increase flood hazards in other areas; and controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters.

Fresno Metropolitan Flood Control District Post-Development Standards Technical Manual

The FMFCD published a Post-Development Standards Technical Manual³⁴ in 2014 to provide development and redevelopment standards to address stormwater quality requirements for projects in areas that do not drain to the Regional Stormwater Management Basin System. Per the manual, five drainage areas in the FMFCD service area do not drain into a stormwater management basin and two areas outside the service area do not drain into a regional stormwater management basin. These post-development requirements were developed to comply with the MS4 Permit maintained for stormwater and non-stormwater discharges from MS4 to waters of the United States. The manual provides guidance and recommendations for implementing stormwater quality BMPs with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges.

Fresno Metropolitan Flood Control District Standard Plans and Specifications

The FMFCD maintains a set of standard specifications and plans intended to serve as requirements for FMFCD improvements and projects. The specifications and plans are maintained and published by FMFCD for use by designers and contractors.

3.10.4 - Methodology

The potential project-related impacts related to hydrology and water quality were evaluated on a qualitative basis due to the programmatic nature of this Recirculated Draft PEIR. Qualitative impacts were assessed by evaluating the project's potential for impacting hydrology and water quality within the Plan Area based on information regarding the current service commitments and capacities of public service providers within the Plan Area.

Technical studies were developed to analyze the impacts of development under the proposed Specific Plan versus the approved General Plan; the Storm Drain and Water Technical Studies are applicable to this section. General Plan land use classifications and Specific Plan land use classifications were provided by the City of Fresno Planning and Development Department in the form of Geographic Information System (GIS) and Shape files. GIS and Shape files were also obtained from the City of Fresno Department of Public Utilities for the existing facilities in Fresno, including the Plan Area.

The Water Technical Study (Appendix F) focused on the analysis of water demand in the Plan Area and how it may change based on Specific Plan development. For the General Plan land use case, the technical memorandum prepared by West Yost Associates for the City of Fresno General Plan Update Master EIR³⁵ was used in obtaining projected water demand data for SEDA. For the Specific Plan analysis, the water demand factors used were prepared by Akel Engineering as part of the Metro Plan Update.³⁶ The GIS files for the General and Specific Plan land uses were used to determine the total areas of each land use classification. The water demand factors were then used with the area of the corresponding land use classification to determine a total water demand for the Plan Area based

³⁴ Fresno Metropolitan Flood Control District (FMFCD). Post-Development Standards Technical Manual. June 2014.

³⁵ West Yost Associates. Hydraulic Evaluation of the Proposed 2035 General Plan Land Use Update for the Master Environmental Impact Report. Table 2. Water Demand Comparison for General Land Use Plan Land Changes. January 21, 2013.

³⁶ Akel Engineering Group Inc. Water and Wastewater Unit Factor Update for Metropolitan Water Resources Management Plan Update. October 2020.

on the General Plan and the Specific Plan developments. The total water demand for the Plan Area based on the General Plan case was compared to that of the Specific Plan case, resulting in the total change in water demand for the Plan Area.

The Storm Drain Technical Study focused on comparing the changes in Equivalent Area for each drainage area of the General Plan to the Specific Plan to determine potential impacts to future storm drain collection systems. The methodology used to calculate the CA values for each case utilized land use data obtained from the City and design data from FMFCD. For the General Plan land use analysis, the FMFCD's "Recommended Design C-Factors for the City of Fresno" was used. Not all land uses described in the General Plan are listed in this table, so some C-Factors were estimated based on their description, while others were taken from FMFCD's hydraulic and hydrology spreadsheets when possible. The FMFCD is currently developing updated C-Factors for the SEDA Specific Plan land use classifications; a set of preliminary values have been developed, and these were used in completing the SEDA Specific Plan analysis. The Equivalent Area data was used to evaluate the required storage capacity for each drainage area, and how this compared to the existing/proposed drainage basins in the Plan Area.

The results from the Technical Studies, along with various City, State, and federal planning documents, were used to analyze and assess the impacts of all utilities systems within the Specific Plan Area and to determine the thresholds of significance for each impact.

3.10.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in the CEQA Guidelines Appendix G Environmental Checklist as thresholds to determine whether hydrology and water quality impacts are significant environmental effects.

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts to resources are significant. These questions reflect the input of planning and environmental professionals at the Governor's Office of Planning and Research and the California Natural Resources Agency, based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. Accordingly, the City has derived its significance criteria, based, in part, on the questions posed in Appendix G. These significance criteria are as follows:

The proposed project would have significant impact on the environment if the proposed project would:

- 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 project may impede sustainable groundwater management of the basin.

- c) Substantially alter the existing drainage pattern of 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.

3.10.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the proposed project and provides mitigation measures where appropriate.

Surface and Groundwater Quality

Impact HYD-1:	The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
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Impact Analysis

Development of the proposed project would result in new industrial, commercial, residential, and mixed-use land uses that would increase the amount of paved impervious surfaces within the Plan Area. This increase in impervious surfaces would increase stormwater runoff at greater rates and volumes than what was predicted under the General Plan. FMFCD is responsible for developing and implementing the Storm Drain Master Plan for the City. As land is developed, the FMFCD works with developers and the City to implement the storm drainage system to collect and dispose of the increased runoff rates and volumes and prevent them from entering local surface waters, including the San Joaquin River, local creeks, and numerous irrigation canals that cross through the Plan Area.

Development within the Plan Area would be required to comply with the requirements of all applicable rules and regulations, including the NPDES Construction General Permit, which would reduce the effects of construction and operational activities on water quality.

Construction

Buildout of the Specific Plan would result in various construction activities in the Plan Area for new individual projects which could present risks to surface water quality. Ground-disturbing activities such as grading, excavation, placing fill, trenching, spoil pile storage, and backfilling of trenches would increase the potential for erosion and sedimentation, particularly during storm events. Construction vehicles and equipment could deposit constituents such as diesel fuel, hydraulic fuel,

oil, and exhaust into the environment that could be conveyed within stormwater runoff to surface waters or groundwater. Additionally, construction materials such as fuels, solvents, and paints may result in contamination of stormwater and present a risk to surface water quality.

New projects that are 1 acre or larger in size will be required to comply with the General Construction Permit, Order No. 2012-0006-DWQ, issued by the State Water Board, and will need to develop and implement a SWPPP to estimate sediment risk from construction activities to receiving waters, and specify BMPs that would be used by the project to minimize pollution of stormwater.

Future development would be required to prepare, implement, and be consistent with the Construction General Permit, including the SWPPP and BMPs, which would reduce project construction impacts on water quality to less than significant. Therefore, construction impacts associated with water quality standards and WDRs would be less than significant.

Operation

The Plan Area will eventually be under the jurisdiction of the FMFCD for stormwater and flood control management. (Portions of the Plan Area are currently within FMFCD boundaries, with the rest actively being developed and annexed.) Stormwater runoff is collected by FMFCD facilities and will typically end up in retention basins. These basins will sometimes be forced to discharge water to surface waters during periods of heavy or consistent rain. These discharges may increase the concentration of sediment and pollution found in stormwater.

Typically, stormwater runoff from urban development contains an array of constituents, such as automotive fluids (e.g., fuels, oils, antifreeze), combustion and exhaust byproducts (e.g., lead, cadmium, nickel), sediments, fertilizers, pesticides, herbicides, and nutrients and bacteria pollutants from domestic and agricultural animal waste. These constituents are expelled into the environment throughout the year, where they settle onto the ground surface. During the wet season, stormwater runoff conveys these pollutants downstream, resulting in polluted stormwater runoff, especially during the first storm events of the season.

Water quality treatment for post-construction discharges to stormwater in the FMFCD urban flood control system area is provided by retention basins. Development in the FMFCD Master Plan area is exempt from further water quality requirements as long as the FMFCD's Storm Water Quality Management Plan is implemented. Storm drainage improvements are funded by local drainage fees paid by developments and constructed by either FMFCD, developers, or both. Basins are effective at reducing average concentrations of a broad range of contaminants via filtration through soil and are built to design criteria exceeding Statewide Standard Urban Stormwater Mitigation Plan standards. There are seven existing basins contributing to stormwater collection for the Plan Area and six proposed basins within the Plan Area. FMFCD basins are designed for a capacity not less than 60 percent of average annual runoff.

The City is a co-permittee with the FMFCD, the County of Fresno, the City of Clovis, and California State University Fresno in the Phase 1 NPDES Permit for Stormwater Discharges from MS4s. This Phase 1 MS4 Permit requires that the City and its co-permittees implement water quality and watershed protection measures for all development projects. The WDRs contained in the NPDES

Permit have been designed to be consistent with the water quality standards and goals established in the Central Valley RWQCB's Basin Plan. The Phase 1 MS4 Permit prohibits discharges from violating applicable water quality standards or creating a nuisance or water quality impairment in receiving waters. Participation in the Phase 1 MS4 Permit and implementation of the FMFCD Storm Water Quality Management Plan would reduce impacts to surface waters to acceptable levels, and long-term project impacts to surface or groundwater quality would not exceed acceptable levels.

The General Plan and this proposed Specific Plan also include policies designed to reduce impacts to water quality. Future development would be required to prepare, implement, and be consistent with the NPDES Permit as well as continued implementation of General Plan and Specific Plan policies, which would reduce project operational impacts associated with water quality standards and wastewater discharge requirements to less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Groundwater Supply/Recharge

Impact HYD-2:	The proposed project could substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
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Impact Analysis

Implementation of the proposed Specific Plan would generate an additional 1.7 percent (0.33 MGD) of groundwater demand in the Plan Area than what was predicted by the General Plan; as such, impacts to groundwater could be significant without mitigation. The City's water system depended completely on groundwater as a water source until 2004, when the first SWTF was commissioned. Today, groundwater is still a primary water source for the City.

Total groundwater recharge in 2020 was 132,480 AF (24,970 AF of natural recharge, 47,510 AF of subsurface inflow, and 60,000 AF of intentional recharge); the total projected groundwater recharge for 2035 is 149,100 AF (26,280 AF of natural recharge, 54,720 AF of subsurface inflow, and 68,100 AF of intentional recharge) and for 2045 is 159,820 AF (26,790 AF of natural recharge, 59,530 AF of subsurface inflow, and 73,500 AF of intentional recharge) during normal water years and assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA.³⁷

Per the FMFCD, six new basins are proposed for the Plan Area for stormwater runoff collection. These basins would likely function as retention basins and retain the stormwater runoff for percolation through the soil to the underlying groundwater aquifer. While impervious surfaces would

³⁷ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan, Table 6-1, Components to Groundwater Yield for Normal Years. July.

increase, resulting in higher amounts of runoff volume, the basins would help with the capture and dispersal of the runoff, thereby assisting with the process of groundwater recharge.

The existing and proposed basins will facilitate stormwater collection, which will encourage groundwater recharge through collection. Of the seven existing basins encompassed by the Plan Area and the six proposed basins, two proposed basins will require revisions to their designs to accommodate the increase in runoff volume. Proposed Basin DW does not have sufficient capacity to accommodate the increased runoff (available volume is exceeded by 12.8 AF), and Basin DX experiences a change in volume of 25.4 percent (exceeds FMFCD's limit of 20 percent before basin must be revised in size/location).

Groundwater pumping has been greatly reduced since the activation of the first SWTF in 2004 and has only further declined as a result of a second SWTF; per the 2020 UWMP, groundwater pumping has decreased from 165,200 AFY in 2003 to 55,000 AF in 2020.³⁸ Surface water has allowed the City to reduce its dependence on groundwater as a water supply. Prior to 2004, 100 percent of Fresno's water demand was met with groundwater. In 2004, the City's first SWTF, the NESWTF, was constructed and activated; it provided 10–15 percent of the City's potable water demand from 2005–2014, and 15 percent from 2016–2020. With the addition of the T-3 Water Storage and modular SWTF (T-3 SWTF) in 2015 and the SESWTF in 2018, the City was able to provide greater than 50 percent of its potable water supply with surface water in 2019 and 2020.³⁹ The City plans on expanding surface water treatment capacities and groundwater recharge activities to further reduce groundwater reliance.

Currently, the Kings Groundwater Subbasin is in a state of overdraft as defined by the DWR. In November 2019, the North Kings GSA adopted the North Kings GSP (prepared by Provost & Pritchard) with the sustainability goal to ensure that by 2040 the Kings Groundwater Subbasin is being managed in a sustainable manner by balancing water demand with available water supply. Continued participation and compliance with the North Kings GSP by the City and other member agencies would ensure a balance of pumping and recharge in the basin by 2040. The GSP was submitted to the California DWR in January 2020. The DWR issued a response in January 2022 stating that the GSP was incomplete, after which the GSP was revised and resubmitted in July 2022. The DWR issued a letter on August 4, 2023, which approved the GSP and proposed a number of additional recommended corrective actions to be included per the DWR SGMA Portal GSP Status Summary.⁴⁰ These are incorporated as Mitigation Measure (MM) HYD-2a. Impact to groundwater supplies and groundwater recharge will be less than significant with mitigation incorporated.

The 2020 UWMP presents data available for actual water supply and demand for the year 2020, as well as projected water usage. For 2020, the projected potable water demand for the City in 2035 is 154,210 AF, but the actual total potable water demand for the City was 121,993 AF.⁴¹ The projected

³⁸ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan, Figure 6-7, Historic Groundwater Production. July.

³⁹ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan. July 2021.

⁴⁰ California Department of Water Resources, SGMA Portal. 2023. GSP Status Summary. Website: <https://sgma.water.ca.gov/portal/gsp/status>. Accessed January 23, 2025.

⁴¹ Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan, Table 4-6, Projected Demands for Water: Potable (DWR 4-2R), and Table 4-7, Projected Demands for Water: Nonpotable (DWR 4-2R). July.

nonpotable water demand for the City for groundwater recharge is 68,100 AF for 2035. The estimated groundwater yield for the City in 2035 is projected to be 149,100 AF, assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA, indicating that groundwater alone will not be sufficient to meet future City demands, including those for SEDA. However, estimated surface water supplies for the City are projected to be 191,600 AF for 2035 (60,000 via USBR, 131,600 via FID) during normal water years, as well as 5,910 AF of recycled water.⁴² Total projected water supply for the City in 2035 is 346,610 AF during normal water years, assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA, and total projected demand is 222,310 AF. The estimated increase in total water use for SEDA in accordance with the Specific Plan selected alternative is 0.33 MGD, or 370 AF. This results in a modified projected potable demand for the City in 2035 of 154,580 AF, with a total water demand (potable and nonpotable) of 222,680 AF. Nonetheless, impacts to water supply and demand would be considered at the time of annexation for each specific parcel.

Assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA, the estimated increase in water demand for the Plan Area could be met with current water supplies in normal year and dry year scenarios; however, securing additional water supplies would likely improve these chances. Therefore, impacts on groundwater supplies would be less than significant with mitigation incorporated.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement MM UTIL-2a, MM UTIL-2b, MM UTIL-2c, and the following:

- MM HYD-2a** The City shall continue to be an active participant in the North Kings Groundwater Sustainability Agency (North Kings GSA) and the implementation of the North Kings Groundwater Sustainability Plan (North Kings GSP) in order to ensure that the Kings Subbasin has balanced levels of pumping and recharge. The City shall confirm that each project for future development in the Fresno Southeast Development Area Specific Plan Area (Plan Area) has incorporated any resulting standards prior to issuing approval for any development applications that require discretionary approval.
- MM HYD-2b** Prior to approving development per the Southeast Development Area (SEDA) Specific Plan for the Fresno SEDA Specific Plan Area (Plan Area), the City shall evaluate the water supply system to determine whether the proposed development will exceed the existing water supply capacity. If it is determined that such development would exceed the existing water supply capacity, the City shall provide additional capacity through water system improvements for the Plan Area in accordance with the City Metropolitan Water Resources Management Plan (Metro Plan).

⁴² Water Systems Consulting, Inc. 2021. City of Fresno 2020 Urban Water Management Plan. July 2021.

- MM HYD-2c** Prior to approving development per the Southeast Development Area (SEDA) Specific Plan for the Fresno SEDA Specific Plan Area (Plan Area), the City shall evaluate existing water demands to determine whether the proposed development will exceed the existing water supplies. If it is determined that such development would exceed the existing water demands, the City shall pursue the provision of adequate water supplies by securing additional water sources.
- MM HYD-2d** The City shall develop new and expand existing groundwater recharge facilities to balance increased water demands resulting from the Fresno Southeast Development Area Specific Plan Area (Plan Area). New and expanded groundwater recharge facilities shall be in accordance with the City of Fresno General Plan and City Metro Plan. The City shall complete these measures prior to approving any new project applications for future development in the project area that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval.
- MM HYD-2e** The City shall continue to develop and implement water conservation measures to reduce the per capita water use to 190 gallons per capita per day (gpcd) in accordance with the conservation target specified in the Fresno General Plan.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

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?

Impact Analysis

- i) Result in substantial erosion or siltation on- or off-site

Construction

Construction activities associated with buildout of the Specific Plan would result in ground-disturbing activities such as grading, excavation, placing fill, trenching, spoil pile storage, and backfilling of trenches. These activities could lead to silt-laden stormwater contributing to downstream surface water degradation. Development within the Plan Area could require the

realignment of an existing stream or canal, which could result in the erosion of soils within the channel or channel banks during rainfall events that could result in siltation of stormwater runoff that leaves/enters the stream or canal. This silt-laden stormwater could contribute to downstream stormwater degradation.

Regulatory requirements such as the City's grading plan check process, the FMFCD Storm Drain Master Plan, and the NPDES Construction General Permit would reduce the impacts of construction activities on drainage patterns and erosion.⁴³

Development within the Plan Area would be required to comply with the City's grading plan check process. Developers must submit grading plans in compliance with the California Building Standards Code (CBC), the Storm Drain Master Plan, and the NPDES Construction General Permit and obtain approval from the FMFCD.

The Storm Drain Master Plan includes proposed elevation of curbs in undeveloped areas, delineation of storm drain inlet watershed areas, collection system pipeline alignments and sizes, and retention basin or urban detention basin locations and sizing. Development in conformance with the Storm Drain Master Plan would ensure that the Plan Area is graded to drain into storm drainage facilities, which collect and dispose of stormwater from the planned development. Retention and urban detention basins intercept and remove silt from stormwater before it is discharged to surface water features.

The grading plan review process for future individual development projects in the Plan Area would identify any plan to alter the course of any creek, stream, or irrigation canal. In this case, the City would require additional other reviews, permits, and agreements with agencies such as the USACE, the United States Fish and Wildlife Service (USFWS), the CDFW, the Central Valley Flood Protection Agency, the State Water Board, the Central Valley RWQCB, the FMFCD, and the FID. Possible permits and agreements include the CWA Section 401 and 403 permits, Endangered Species or Habitat Plan, Section 1603 Streambed Alteration Agreement, and Irrigation Canal Encroachment permit. Agreements would need to be made prior to the issuance of grading permits.

The NPDES Construction General Permit program is administered for the City by the Central Valley RWQCB. It regulates sources of erosion at construction sites that would result in the discharge of silt-laden stormwater from the site and into subsequent receiving waters during both construction and operations activities.

Compliance with the grading plan check process along with other regulations described above would reduce project construction impacts on drainage patterns and erosion to acceptable levels. Therefore, construction impacts associated with erosion would be less than significant.

⁴³ City of Fresno Planning and Development Department Building and Safety Services Division. 2021. Grading Plan Process. Website: https://www.fresno.gov/darm/wp-content/uploads/sites/10/2021/09/GRADING_PLAN_REQUIREMENTS_2021.pdf. Accessed July 6, 2022.

Operation

Implementation of the proposed project would result in new commercial, residential, employment, and mixed-use land uses. Grading and increases in impervious surfaces resulting from this development could alter alignments of existing creeks, streams, or irrigation canals and increase stormwater runoff rates. Higher rates of stormwater runoff would increase the potential for soil erosion. FMFCD works with developers and the City to collect and prevent silt-laden stormwater from entering local surface waters, including several irrigation canals that run through the Plan Area. As part of the Storm Drain Master Plan, new aboveground storm drainage infrastructure would direct runoff to underground pipelines, which would convey the stormwater to proposed retention and urban detention basins within the Plan Area. Discharges from the basins could increase the concentration of sediment in the receiving waters.

As described above, future individual development projects under the Specific Plan would be required to obtain a grading permit from the City and follow the grading plan check process. As a co-permittee in the Phase I NPDES Permit, development associated with the proposed Specific Plan would be reviewed to ensure coverage under the Construction General Permit.

Portions of the Plan Area are currently in agricultural use. At buildout of the proposed project, these areas may be developed with land uses consisting of buildings, paved area, and landscaping. Bare soil on farmland is more susceptible to erosion than developed urban land. Therefore, buildout of the proposed project is expected to cause some reduction in on-site erosion.

The General Plan and the proposed Specific Plan include objectives and policies that would reduce potential impacts related to erosion and siltation. Along with the grading plan check process, continued implementation of the proposed Specific Plan and approved General Plan would reduce project operational impacts associated with alteration of drainage patterns, streams or creeks, and erosion to less than significant levels.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site

Construction

Construction activities associated with buildout of the Specific Plan would result in ground-disturbing activities such as grading, excavation, placing fill, trenching, spoil pile storage, and backfilling of trenches. These activities would change existing surface drainage patterns and increase the potential for flooding, particularly during storm events. While temporary, ground-disturbing construction activities that substantially compact the development site soils could increase runoff volumes that could result in flooding on or off the construction site.

Development within the Plan Area could propose realigning an existing stream or canal; doing so could result in the alteration of drainage patterns that could result in flooding on or off the construction site.

Regulatory mechanisms in place that would reduce the impacts of construction activities on drainage patterns that could result in flooding on or off the construction site include compliance

with the City's grading plan check process, the Storm Drain Master Plan, and the NPDES Construction General Permit. Discussion of these regulatory processes is included in the above section for erosion and siltation. Compliance with these required regulations would reduce the project construction impacts on drainage patterns and flooding on and off the construction site to less than significant levels.

Operation

Development consistent with implementation of the proposed Specific Plan would result in new commercial, residential, employment, and mixed-use land uses that would regrade undeveloped land to new grading patterns, may propose to alter the alignments of existing creeks, streams, or irrigation canals, and would increase impervious surfaces, which would increase stormwater runoff rates. Higher runoff rates and greater volumes of stormwater runoff would increase the potential for flooding of the development site and off-site locations. Since the FMFCD is responsible for developing and implementing the Storm Drain Master Plan for the City, the FMFCD works with developers and the City to implement the storm drainage system to collect and dispose of the increased stormwater runoff rates and volumes and prevent flooding as a result of the development and grading of the land. The storm drainage system that would be implemented for the Plan Area would include street, curbs, and gutters that direct stormwater to storm drain inlets and underground pipelines. The pipelines convey the runoff to retention and urban detention basins to be located at strategic locations in the Plan Area. The basins dispose of the runoff through percolation into the soil and, in emergencies and in preparation for the next series of rain events, through pumping to designated irrigation canals. The urban detention basins discharge to the San Joaquin River.

Development under the proposed Specific Plan would be required to obtain a grading permit from the City and follow the grading plan check process as described above. Developments would also be required to be designed and graded so as to not impede the flow of flood waters through or around their sites. This process would reduce the potential for long-term flooding impacts to less than significant.

Additionally, the proposed Specific Plan and the approved General Plan include objectives and policies that would reduce potential flooding impacts. Along with the grading plan check process, continued implementation of the proposed Specific Plan and approved General Plan would reduce project operational impacts associated with flooding due to alterations of drainage patterns to less than significant levels.

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

Construction

FMFCD implements the Storm Drain Master Plan and the District Services Plan. Local storm drainage Master Plan engineering of storm drain facilities analyzes the topography, planned land use, climatology, and geology to produce a detailed drainage hydrology for each local drainage area. Following these analyses, plans for preliminary pipeline or alternative conveyance systems are completed using runoff flow calculations based on planned land uses to guide retention basin size

and location. System relief facilities are designed for use in major storm events. Land is assessed to ensure that there is no evidence of hazardous material or waste contamination that would enter the storm drainage system. Site-specific environmental studies are also conducted in compliance with CEQA review of discretionary projects. The change in land uses resulting from implementation of the proposed Specific Plan would slightly increase the sources of pollution in stormwater runoff by converting General Plan land uses to Specific Plan land uses. The increase in sources would result from the increased number of landowners and uses that would occur within the Plan Area.

Operation

Development as part of the proposed project would increase impervious surfaces on-site and thus increase runoff from the Plan Area. The buildout of the proposed Specific Plan when compared to the General Plan would result in a net change of 248 AF in expected runoff; FMFCD allows a 20 percent change in required basin volumes before the basin must be modified. As illustrated in Table 3.10-2, buildout of the Specific Plan would not result in a change of volume of more than 20 percent or exceed the remaining basin volume for existing basins encompassed within the Plan Area. As illustrated in Table 3.10-3, buildout of the proposed Specific Plan would result in a change in required volume of more than 20 percent in one proposed basin (Basin DX) and the exceedance of one proposed basin's capacity (Basin DW). This creates a potentially significant impact. However, Implementation of MM HYD-2 through 4, which includes revisions to Basin DX and Basin DW plans, would reduce impacts to a less than significant level.

Table 3.10-2: General Plan and Specific Plan Anticipated Runoff Volume for Existing Basins Encompassed within SEDA Specific Plan Area

Drainage Area	GP FMFCD Design Runoff Volume (AF)	SP Runoff Volume Increase (AF)	SP Runoff Volume Increase (%)	GP FMFCD Basin Design Volume (AF)	Remaining Basin Volume (AF)
BG	213.2	8.50	4.0%	232.1	10.4
BL	274.0	4.00	1.5%	301.1	23.1
BM	379.3	0.46	0.1%	390.4	10.7
BS	332.2	5.34	1.6%	396.7	59.2
CS	310.4	4.75	1.5%	346.5	31.3
Notes: AF = acre-feet FMFCD = Fresno Metropolitan Flood Control District GP = General Plan SP = Specific Plan Source: Blair, Church & Flynn Consulting Engineers. SEDA Specific Plan Storm Drain Technical Study. June 10, 2022.					

Table 3.10-3: General Plan and Specific Plan Anticipated Runoff Volume for Proposed Basins within SEDA Specific Plan Area

Drainage Area	GP FMFCD Design Runoff Volume (AF)	SP Runoff Volume Increase (AF)	SP Runoff Volume Increase (%)	GP FMFCD Basin Design Volume (AF)	Remaining Basin Volume (AF)
DS	433.8	85.2	19.6%	1,383.3	864.3
DT	207.3	18.7	9.0%	232.4	6.4
DU	305.0	3.8	1.3%	323.8	15.0
DV	171.7	6.6	3.8%	230.0	51.7
DW	212.3	34.4	16.2%	233.9	-12.8
DX	215.7	54.8	25.4%	304.5	34.0
DY	279.9	10.4	3.7%	295.2	4.9
DZ	237.4	11.1	4.7%	263.6	15.1

Notes:
 AF = acre-feet
 FMFCD = Fresno Metropolitan Flood Control District
 GP = General Plan
 SP = Specific Plan
 Source: Blair, Church & Flynn Consulting Engineers. SEDA Specific Plan Storm Drain Technical Study. June 10, 2022.

As discussed above, stormwater runoff from urban development contains an array of pollutants. Future individual development project would be required to comply with General Plan and the proposed Specific Plan policies and implement water quality and watershed protection measures for all development projects as part of its NPDES Phase 1 MS4 Permit. Furthermore, impacts associated with water quality standards and wastewater discharge requirements would be less than significant.

iv) Impede or redirect flood flows

Constructing buildings in floodplains puts those structures in danger of repeated flooding. The sources of flooding in the Plan Area include several irrigation canals, including Redbank Creek, the Gould Canal, the Gray Colony Canal, Dog Creek, the Mill Canal, the Temperance Canal, the Fancher Creek Canal, the Briggs Canal, the East Branch West Branch Canal, the Hansen Canal, and the Armstrong Canal.

FEMA prepares FIRMs to map flood zones in order to assist communities with floodplain management regulations and flood insurance requirements. FEMA has prepared multiple FIRMs for the City that show floodplain zones throughout Fresno and surrounding areas. According to the FIRMs that include SEDA, a majority of the Plan Area is outside the 100-year flood zones; most areas are located within Zone X (Unshaded) (outside of the 500-year (0.2 percent annual chance) floodplain with minimal risk of flooding). However, several areas in the northern portion of SEDA (north of SR-180) are within zones of higher flood chances, including Zones X (shaded) (between the 100-year and 500-year floodplain with moderate risk of flooding), Zone A (SFHA within the 100-year

floodplain with high risk of flooding), Zone AE (SFHA within the 100-year floodplain with high risk of flooding and known base flood elevations), and Zone A/AE Regulatory Floodplains (SFHA within the 100-year [1 percent annual chance] floodplain with high risk of flooding with areas that must be reserved for base flood discharge); these areas are mainly adjacent to existing rivers, creeks, canals, or detention basins.

Per the FEMA FIRM, areas surrounding and along the Fancher Creek are within Zone X (shaded), the area containing the Redbank Detention Basin is within Zone A, areas surrounding and along the Mill Ditch and Redbank Creek are within Zone AE, and a portion of the Redbank Creek along the northern SEDA border is defined as a Regulatory Floodplain.

The City participates in the NFIP which adopts FIRMs, appoints a trained Floodplain Administrator, adopts a floodplain ordinance modeled after the Flood Insurance Program (FIP) model ordinance, and enforces the ordinance and the requirements of Title 40 of the Code of Federal Regulations (40 CFR-Protection of Environment), Subchapter D (Water Programs, Parts 100–149). The City enforces these requirements through Chapter 11, Article 6 of the Fresno Municipal Code (Fresno Flood Plain Ordinance), which outlines specific requirements for floodproofing of structures. The Specific Plan include developments that would be located within these SFHAs; development within these areas would require substantial floodproofing and any required review and approval of the developments by the City, FMFCD, FEMA, and any other governing body. If developments follow the floodplain ordinance and General Plan objectives and policies are implemented, impacts associated with flooding of developments within the 100-year floodplain would be less than significant.

Development as part of the proposed Specific Plan would increase the area of impervious surfaces within the Plan Area and thus increase runoff from the Plan Area. However, compliance with federal, State, and local regulations and requirements to prevent development within the 100-year floodplain, installation of flood protection mechanisms, and implementation of MM HYD-2 through 4 would reduce impacts to a less than significant level with mitigation incorporated.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Prior to approving any development in the Plan Area, the City shall implement the following mitigation measures and shall document the results of each.

- MM HYD-3a** The City shall support the Fresno Metropolitan Flood Control District (FMFCD) in updating the Storm Drainage and Flood Control Master Plan for the Plan Area to include the proposed basins and the analysis necessary to provide adequate capacity for future stormwater runoff resulting from future development of the Southeast Development Area (SEDA) Specific Plan. The City shall complete these measures prior to approving any new project applications for future development in the Fresno SEDA Specific Plan Area (Plan Area) that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval.

- MM HYD-3b** The City shall support the Fresno Metropolitan Flood Control District (FMFCD) in implementing the Storm Drainage and Flood Control Master Plan improvements for the proposed drainage areas within the Fresno Southeast Development Area Specific Plan Area (Plan Area). Any new proposed development in the Plan Area shall be reviewed by the City and FMFCD to confirm that design and construction documents have incorporated the updated Storm Drainage and Flood Control Master Plan improvements, prior to approving any such development.
- MM HYD-3c** The City shall support the Fresno Metropolitan Flood Control District (FMFCD) in reevaluating proposed Basins DW and DX for available capacities and shall expand these basins or construct additional basins to accommodate the future stormwater capacities from development in the Southeast Development Area (SEDA) Specific Plan Area (Plan Area) in accordance with the SEDA Specific Plan. The City shall complete these measures prior to approving any new project applications for future development in the Plan Area that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval.
- MM HYD-3d** The City shall implement the following measures to reduce the impacts on the capacity of existing or planned storm drainage Master Plan collection systems within the Fresno Southeast Development Area (SEDA) Specific Plan Area (Plan Area) to less than significant:
- Require developments that increase site imperviousness to install, operate, and maintain Fresno Metropolitan Flood Control District (FMFCD) approved on-site detention systems to reduce the peak runoff rates resulting from the increased imperviousness to the peak runoff rates that will not exceed the capacity of the existing stormwater collection systems.
- MM HYD-3e** The City shall implement the following measures to reduce the impacts on the capacity of existing or planned storm drainage Master Plan retention basins within the Fresno Southeast Development Area Specific Plan Area (Plan Area) to less than significant:
- Prior to approval of development projects, support the Fresno Metropolitan Flood Control District (FMFCD) in updating the Storm Drainage and Flood Control Master Plan to analyze the impacts to existing and planned retention basins within the Plan Area to determine remedial measures required to reduce the impact on retention basin capacity to less than significant. Remedial measures would include:
 - Increase the size of the retention basin through the purchase of more land or deepening the basin or a combination for planned retention basins.
 - Increase the size of the emergency relief pump capacity required to pump excess runoff volume out of the basin and into adjacent canals that convey the stormwater to a disposal facility for existing retention basins.

- Require developments that increase runoff volume to install, operate, and maintain Low Impact Development (LID) measures to reduce runoff volume to the runoff volume that will not exceed the capacity of the existing retention basins.

MM HYD-3f The City shall implement the following measures to reduce the impacts on the capacity of existing or planned storm drainage Master Plan urban detention (stormwater quality) basins within the Fresno Southeast Development Area Specific Plan Area (Plan Area) to less than significant:

- Prior to approval of development projects, support the Fresno Metropolitan Flood Control District (FMFCD) in updating the Storm Drainage and Flood Control Master Plan to determine the impacts to the urban detention weir overflow rates and determine remedial measures required to reduce the impact on the detention basin capacity to less than significant. Remedial measures would include:
 - Modify overflow weir to maintain the suspended solids removal rates adopted by the FMFCD Board of Directors.
 - Increase the size of the urban detention basin to increase residence time by purchasing more land.
 - Require developments that increase runoff volume to install, operate, and maintain Low Impact Development (LID) measures to reduce peak runoff rates and runoff volume to the runoff rates and volumes that will not exceed the weir overflow rates of the existing urban detention basins.

MM HYD-3g The City shall implement the following measures to reduce the impacts on the capacity of existing or planned storm drainage Master Plan pump disposal systems within the Fresno Southeast Development Area Specific Plan Area (Plan Area) to less than significant:

- Prior to approval of development projects, support the Fresno Metropolitan Flood Control District (FMFCD) in updating the Storm Drainage and Flood Control Master Plan to determine the extent and degree to which the capacity of the existing pump system will be exceeded.
- Require new developments to install, operate, and maintain FMFCD design standard on-site detention facilities to reduce peak stormwater runoff rates to existing planned peak runoff rates.
- Provide additional pump system capacity to maximum allowed by existing permitting to increase the capacity to match or exceed the peak runoff rates determined by the Storm Drainage and Flood Control Master Plan update.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Risk of Pollutant Release Due to Inundation

Impact HYD-4: **The proposed project would not be located in a flood hazard zone, tsunami, or seiche zone, or risk release of pollutants due to project inundation.**

Impact Analysis

Development of structures in floodplains puts those structures at risk from flooding. The sources of flooding in the Plan Area include several irrigation canals, including Redbank Creek, the Gould Canal, the Gray Colony Canal, Dog Creek, the Mill Canal, the Temperance Canal, the Fancher Creek Canal, the Briggs Canal, the East Branch West Branch Canal, the Hansen Canal, and the Armstrong Canal. There are regulatory facilities that help control flooding in Fresno, including the Big Dry Creek Dam and Reservoir, the Fancher Creek Dam and Fancher Creek Detention Basin, and the Redbank Dam and Redbank Creek Detention Basin.

Construction

FEMA prepares FIRMs to map flood zones in order to assist communities with floodplain management regulations and flood insurance requirements. FEMA has prepared multiple FIRMs for the City that show floodplain zones throughout Fresno and surrounding areas. According to the FIRMs that include SEDA, a majority of the Plan Area is outside the 100-year flood zones; most areas are located within Zone X (unshaded), outside of the 500-year (0.2 percent annual chance) floodplain with minimal risk of flooding. However, several areas in the northern portion of SEDA (north of SR-180) are within zones of higher flood chances, including Zones X (shaded), between the 100-year and 500-year floodplain with moderate risk of flooding, Zone A (SFHA within the 100-year floodplain with high risk of flooding), Zone AE (SFHA within the 100-year floodplain with high risk of flooding and known base flood elevations), and Zone A/AE Regulatory Floodplains (SFHA within the 100-year [1 percent annual chance] floodplain with high risk of flooding with areas that must be reserved for base flood discharge); these areas are mainly adjacent to existing rivers, creeks, canals, or detention basins.

Per the FEMA FIRM, areas surrounding and along the Fancher Creek are within Zone X (shaded), the area containing the Redbank Detention Basin is within Zone A, areas surrounding and along the Mill Ditch and Redbank Creek are within Zone AE, and a portion of the Redbank Creek along the northern SEDA border is defined as a Regulatory Floodplain.

The City participates in the NFIP which adopts FIRMs, appoints a trained Floodplain Administrator, adopts a floodplain ordinance modeled after the FIP model ordinance, and enforces the ordinance and the requirements of Title 40 of the Code of Federal Regulations (40 CFR-Protection of Environment), Subchapter D (Water Programs, Parts 100–149). The City enforces these requirements through Chapter 11, Article 6 of the Fresno Municipal Code (Fresno Flood Plain Ordinance), which outlines specific requirements for floodproofing of structures. The proposed Specific Plan include developments that would be located within these SFHAs; development within these areas would require substantial floodproofing and any required review and approval of the developments by the City, FMFCD, FEMA, and any other governing body. If developments follow the floodplain ordinance, and General Plan objectives and policies are implemented, impacts associated with flooding of developments within the 100-year floodplain would be less than significant.

A tsunami is an ocean wave caused by a sudden displacement of the ocean floor, most often due to an earthquake. The Plan Area is approximately 115 miles inland from the Pacific Ocean and is at elevation ranging from about 308 feet above mean sea level (AMSL) at the southwest corner to 372 feet AMSL at the northeast corner of the Plan Area. According to the California Governor's Office of Emergency Services (Cal/OES) MyHazards website,⁴⁴ the Plan Area is not at risk of flooding due to a tsunami, and impacts would be less than significant.

A seiche is a surface wave created when an inland water body is shaken, usually by strong winds or an earthquake. It can occur in large bodies of water, such as bays and lakes, and may occur in any semi- or fully enclosed body of water. The nearest body of water capable of generating a seiche is Big Dry Creek Reservoir about 6 miles north of the Plan Area. Continued implementation of the proposed Specific Plan and the approved City General Plan would not introduce new land uses near the reservoir that could be inundated, and Big Dry Creek Reservoir is a relatively small reservoir that would not be subject to strong oscillations during an earthquake event. The Plan Area is not at risk of flooding due to a seiche, and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Water Quality Control or Sustainable Groundwater Management Plans Consistency

Impact HYD-5:	The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
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Impact Analysis

SGMA requires that governments and water agencies located in high and medium priority basins halt groundwater overdraft and bring groundwater basins into balanced level of pumping and recharge. As described in this section, the City of Fresno is located in the North Kings GSA, which includes the FID, County of Fresno, City of Fresno, City of Clovis, City of Kerman, Biola Community Services District, Garfield Water District, and the International Water District. In November 2019, the North Kings GSA prepared the North Kings GSP with the sustainability goal to ensure that by 2040, the Kings Groundwater Subbasin is being managed in a sustainable manner to maintain a reliable water supply by balancing water demand with available water supply.⁴⁵

The North Kings GSP determined that the North Kings GSA could reach sustainability by 2040 if groundwater flows from within the North Kings GSA to neighboring GSAs and basins are reduced and projects are developed to mitigate present and future projected impacts. The North Kings GSP relied on population projections and estimated water demand consistent with the City's UWMP in order to

⁴⁴ California Governor's Office of Emergency Services (Cal/OES). 2015. MyHazards. Website: <https://myhazards.caloes.ca.gov/>. Accessed June 13, 2022.

⁴⁵ North Kings Groundwater Sustainability Agency (North Kings GSA). Groundwater Sustainability Plan. Website: <https://northkingsgsa.org/groundwater-sustainability-plan/>. Accessed June 15, 2022.

develop the projects and management actions needed to reach sustainability in 2040. Additionally, the City identified the following projects to meet the initial estimate of impact on groundwater:

- Residential Water Meter Retrofit Project (completed)
- T-3 Surface Water Treatment Facility (completed)
- Southwest Reclamation Facility and Distribution System (completed)
- Nielsen Recharge Facility (completed)
- Southeast Surface Water Treatment Facility (completed)
- Northeast Surface Water Treatment Facility Expansion
- Southeast Reclamation Facility and Distribution System

Additional projects identified by member agencies and those included in the North Kings GSP may be implemented in the future depending on cost. Implementation of the SEDA Specific Plan would not conflict with or obstruct implementation of projects and management actions included in the North Kings GSP. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

3.10.7 - Cumulative Impacts

The proposed Specific Plan would develop hydrological infrastructure within the Plan Area and, therefore, would generally eliminate cumulative impacts outside of it. The impacts of anticipated development and projects resulting from the Specific Plan have been analyzed in this Recirculated Draft PEIR. Most impacts are localized and would occur at different times as the Specific Plan is built out. Therefore, by nature, the proposed project would generally not combine with other projects to cause cumulatively considerable impacts. Where there are regional impacts, they would occur on a scale and of a difficulty that cannot be addressed within a Specific Plan and are being addressed with long-term planning by regional groups and State agencies. However, some potential cumulative impacts were identified and are discussed below.

Groundwater

The Kings Subbasin is in overdraft condition due to substantial groundwater pumping. Growth in the Kings Subbasin would increase demands for groundwater pumping, potentially resulting in continued drawdown of water levels leading to localized cones of depression, changes in groundwater flow direction, concentration of contaminants, and land subsidence. This is a regional problem that is being addressed through several means, including the formation of GSAs and the development of GSPs. Implementation of the Specific Plan would generate an additional 1.7 percent (0.33 MGD) of groundwater demand in the Plan Area over what was predicted by the General Plan. However, as discussed above, this may be accommodated with full implementation of the proposed Specific Plan. The City has also placed a higher emphasis on surface water and groundwater recharge, supplying greater than 50 percent of its potable water supply with surface water in 2019

and 2020. The City is a member of the North Kings GSA; continued participation and compliance with the North Kings GSP and continued development of water conservation policies/programs and water supply infrastructure will reduce the cumulative impacts related to hydrology. This is incorporated as MM HYD-2 and will reduce impacts to a less than significant level with mitigations incorporated.

Hydrology and Water Quality

Buildout of the proposed project would increase the amount of paved impervious surfaces within the Plan Area. This increase in impervious surfaces would increase stormwater runoff rates and volumes over those that occur from development under the General Plan. This increase in runoff would have the potential to increase the amount of polluted runoff. However, as described above, additional stormwater detention basins and expanded capacity for stormwater is planned throughout the Plan Area. This is required by MM HYD-3a, MM HYD-3b, and MM HYD-3c. Furthermore, all development projects within the Fresno-Clovis area would be required to comply with the MS4 Permit that requires the implementation of water quality and watershed protection measures. Compliance with the MS4 Permit would reduce potential impacts from cumulative projects to less than significant. Since the development under the proposed Specific Plan would also need to comply with the MS4 Permit and includes specific policies of the proposed Specific Plan and the approved City General Plan, the proposed project's contribution to potential cumulative impacts would be less than significant with mitigations incorporated.

Level of Cumulative Significance Before Mitigation

Potentially significant impact.

Cumulative Mitigation Measures

Implement MM UTIL-2a, MM UTIL-2b, MM UTIL-2c, MM HYD-2a, MM HYD-2b, MM HYD-2c, MM HYD-2d, MM HYD-2e, MM HYD-3a, MM HYD-3b, MM HYD-3c, MM HYD-3d, MM HYD-3e, MM HYD-3f, and MM HYD-3g.

Level of Cumulative Significance After Mitigation

Less than significant impact with mitigation incorporated.

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3.11 - Land Use and Planning

3.11.1 - Introduction

This section describes the existing land use and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based, in part, on review of the Fresno General Plan (General Plan), Municipal Code, the proposed Fresno Southeast Development Area (SEDA) Specific Plan (Specific Plan), and aerial photos.

As further discussed in Chapter 1, Introduction, three comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to land use and planning:

- Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the Planning Area.
- Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impacts.
- Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.11.2 - Environmental Setting

Land Use

Southeast Development Area Specific Plan

The nearly 9,000-acre Plan Area is characterized by residential, mixed use, office, public facilities, and open space uses. The predominant existing uses in the Plan Area are agricultural and rural residential uses. Agricultural lands consist of vineyards, orchards, vegetable farms, and agriculture-related and commercial operations, such as plant nurseries, wineries, and other various agricultural businesses. Rural residential development is primarily concentrated in the area between State Route (SR) 180 and McKinley Avenue. There are 700 residential parcels (approximately 2.6 acres each on average), which accommodate 713 single-family homes and 13 mobile homes.

The Fresno Model Farmland Conservation Program (MFCP) recognizes the Plan Area as a location for efficient and cost-effective urban development that serves to preserve and enhance strategic agricultural lands beyond the urban edge.

The current roadway network is mainly comprised of two-lane county roads at 0.5-mile intervals, interspersed with local streets. Major roadway access corridors include Temperance, Clovis, and Jensen Avenues.

Surrounding Land Uses

West

Locan, Temperance, and Minnewawa Avenues serve as the western boundary of the Plan Area. Portions of the western boundary are within the Fresno city limits. Land uses to the west of the Plan Area are primarily Residential–Medium Density, Residential–Medium Low Density, and Residential–Low Density. Other land uses west of the Plan Area include commercial, industrial, public facilities, and open space.

North

Jensen Avenue, and the Fresno city limits are located along the southwestern portion of the Plan Area with Gould Canal running along the northern boundary. Land uses north of the Plan Area are within unincorporated Fresno County and within the City of Clovis limits and Sphere of Influence (SOI). City of Clovis land uses north of the Plan Area include AG–Agriculture, W–Water, VL–Very Low Density Residential (0.6-2.0 dwelling unit per acre [du/acre]) L–Low Density Residential (2.1-4.0 du/acre), and M–Medium Density Residential (7.1-15.0 du/acre).¹

East

McCall and Highland Avenues form the eastern boundary of the Plan Area. Lands east of the Plan Area are within unincorporated Fresno County. According to the County of Fresno General Plan, Current Land Use Map, the land to the east of the Plan Area is predominately designated as Agriculture/Open Space and Public Lands. There are also small portions of the area to the east of the Plan Area that are designated as Residential and Rural Residential.²

South

Jensen and North Avenues form the southern boundary of the Plan Area. Lands south of the Plan Area are within unincorporated Fresno County. The predominant land uses south of the Plan Area are zoned as Exclusive Agricultural (AE-20) according to the County of Fresno General Plan.³

Land Use Designations

SEDA Specific Plan Area

Exhibit 3-11.1 summarizes the existing General Plan land use designations and zoning in the Plan Area. Chapter 2, Project Description, Exhibit 2-2, depicts the proposed land use designations for the Plan Area.

¹ City of Clovis. 2014. Clovis General Plan Figure LU-2, Land Use Diagram. Website: <https://cityofclovis.com/wp-content/uploads/2018/10/Figure-LU-2.pdf>. Accessed June 6, 2022.

² County of Fresno. 2000. Fresno County General Plan, Figure 1-5: Current Land Use Map. Website: <https://www.co.fresno.ca.us/home/showpublisheddocument/8398/636379166183770000>. Accessed January 17, 2023.

³ County of Fresno. County of Fresno–Zoning. Website: <https://gisportal.co.fresno.ca.us/portal/apps/webappviewer/index.html?id=b921843d343d4df998b5b3c6a301756a>. Accessed March 21, 2023.

3.11.3 - Regulatory Framework

Federal

Code of Federal Regulations Part 77

Title 14 of the Code of Federal Regulations Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace, governs the Federal Aviation Administration (FAA) review of proposed construction exceeding certain height limits, defines airspace obstruction criteria, and provides for FAA aeronautical studies of proposed construction. The regulations contain three key elements: (1) standards for determining obstructions in the navigable airspace and designation of imaginary surfaces for airspace protection; (2) requirements for project sponsors to provide notice to the FAA of certain proposed construction or alteration of structures that may affect the navigable airspace; and (3) the initiation of aeronautical studies, by the FAA, to determine the potential effect(s), if any, of proposed construction or alterations of structures on the subject airspace. Pursuant to these federal regulations, any new structure or alterations to an existing structure (including portions of structures, mechanical equipment, flag poles, and other projections) with a height that would exceed Part 77 elevation thresholds is required to file a Notice of Proposed Construction or Alteration with the FAA. Part 77 Subpart C establishes obstruction standards for the airspace around airports including approach zones, conical zones, transitional zones, and horizontal zones known as “imaginary surfaces.” These imaginary surfaces rise from the primary surface (ground level at the SFO runways), and gradually rise along the approach slopes and sides of the runways. The FAA considers any objects that penetrate these imaginary surfaces as potential obstructions to air navigation. Obstructions may occur without compromising safe air navigation, but they must be marked, lighted, and noted on aeronautical publications to ensure that pilots can see and avoid them.

State

California Senate Bill 1818

California Senate Bill (SB) 1818, Chapter 928, provides developers with a density bonus and other incentives for constructing lower income housing units within a development provided the developer meets certain requirements, as enumerated in Section 65915(b) of the Government Code:

- 65915 (b) A city, county, or city and county shall grant a density bonus and incentives or concessions described in subdivision (d) when the applicant for the housing development seeks and agrees to construct at least any one of the following:
- (1) Ten percent of the total units of a housing development for lower income households, as defined in Section 50079.5 of the Health and Safety Code.
 - (2) Five percent of the total units of a housing development for very low-income households, as defined in Section 50105 of the Health and Safety Code.
 - (3) A senior citizen housing development as defined in Sections 51.3 and 51.12 of the Civil Code.
 - (4) Ten percent of the total dwelling units in a condominium project as defined in subdivision (f) of, or in a planned development as defined in subdivision (k) of,

Section 1351 of the Civil Code, for persons and families of moderate income, as defined in Section 50093 of the Health and Safety Code.

With respect to parking requirements, Section 65915.p(1) states:

Upon the request of the developer no city, county, or city and county shall require a vehicular ratio, inclusive of handicapped and guest parking, of a development meeting the criteria of subdivision (b) that exceeds the following ratios:

- (A) Zero to one bedrooms: one on-site parking space
- (B) Two to three bedrooms: two on-site parking spaces

Williamson Act

The California Land Conservation Act of 1965 (Williamson Act) allows local governments to enter into voluntary contracts with private landowners to restrict specific parcels of land to agricultural uses. In return, restricted parcel property taxes are assessed at a rate consistent with their actual use rather than potential market value. The minimum length of a Williamson Act Contract is 10 years. Because the contract term automatically renews on each anniversary date of the contract, the actual contract length is essentially indefinite.

Quimby Act

The Quimby Act of 1965 is a State law that allows local legislative bodies to adopt requirements for the dedication of land for parks or recreational purposes, payment of fees in-lieu-of land dedication, or a combination of both, as a condition of approval for a subdivision. The requirements must be adopted by an ordinance, with definite standards for determining the amount of land dedicated, or fees paid, and the requirement must have a clear nexus to the use of the facilities by the future inhabitants of the subdivision. Project consistency with policies related to recreation is discussed in Section 3-15, Public Services, of this Recirculated Draft PEIR.

Local

Fresno General Plan

The Fresno General Plan outlines a long-range vision for the physical development of the city that reflects the community's vision to preserve the desirable qualities of the existing community while encouraging the aspirations of the community.

Urban Form, Land Use, and Design

The Urban Form, Land Use, and Design Chapter, Chapter 3 of the General Plan, establishes a structural framework for the City and provides policy direction on urban form and a basis for land use decision-making.

Urban Form

Objective UF-1 Emphasize the opportunity for a diversity of districts, neighborhoods, and housing types.

- Policy UF-1-a Diverse Neighborhoods.** Support development projects that provide Fresno with a diversity of urban and suburban neighborhood opportunities.
- Policy UF-1-c Identifiable City Structure.** Focus integrated and ongoing planning efforts to achieve an identifiable city structure, comprised of a concentration of buildings, people, and pedestrian-oriented activity in Downtown; along a small number of transit-oriented, mixed-use corridors and strategically located Activity Centers; and in existing and new neighborhoods augmented with parks and connected by multi-purpose trails and tree lined bike lanes and streets.
- Policy UF-1-d Range of Housing Types.** Provide for diversity and variation of building types, densities, and scales of development in order to reinforce the identity of individual neighborhoods, foster a variety of market-based options for living and working to suit a large range of income levels, and further affordable housing opportunities throughout the city.
- Policy UF-1-e Unique Neighborhoods.** Promote and protect unique neighborhoods and mixed-use areas throughout Fresno that respect and support various ethnic, cultural and historic enclaves; provide a range of housing options, including furthering affordable housing opportunities; and convey a unique character and lifestyle attractive to Fresnoans. Support unique areas through more specific planning processes that directly engage community members in creative and innovative design efforts.
- Policy UF-1-f Complete Neighborhoods, Densities, and Development Standards.** Use Complete Neighborhood design concepts and development standards to achieve the development of Complete Neighborhoods and the residential density targets of the General Plan.
- Objective UF-12** Locate roughly one-half of future residential development in infill areas—defined as being within the City on December 31, 2012— including the Downtown core area and surrounding neighborhoods, mixed-use centers and transit-oriented development along major BRT corridors, and other non-corridor infill areas, and vacant land.
- Policy UF-12-a BRT Corridors.** Design land uses and integrate development site plans along BRT corridors, with transit-oriented development that supports transit ridership and convenient pedestrian access to bus stops and BRT station stops.
- Policy UF-12-b Activity Centers.** Mixed use designated areas along BRT and/or transit corridors are appropriate for more intensive concentrations of urban uses. Typical uses could include commercial areas; employment centers; schools; compact residential development; religious institutions; parks; and other gathering points where residents may interact, work, and obtain goods and services in the same place.

Policy UF-12-d Appropriate Mixed Use. Facilitate the development of vertical and horizontal mixed-uses to blend residential, commercial, and public land uses on one or adjacent sites. Ensure land use compatibility between mixed-use districts in Activity Centers and the surrounding residential neighborhoods.

Policy UF-12-e Access to Activity Centers. Promote adoption and implementation of standards supporting pedestrian activities and bicycle linkages from surrounding land uses and neighborhoods into Activity Centers and to transit stops. Provide for priority transit routes and facilities to serve the Activity Centers.

Policy UF-12-f Mixed Use in Activity Centers. Adopt a new Development Code which includes use regulations and standards to allow for mixed-uses and shared parking facilities.

Policy UF-12-g Impacts on Surrounding Uses. Establish design standards and buffering requirements for high-intensity Activity Centers to protect surrounding residential uses from increased impacts from traffic noise and vehicle emissions, visual intrusion, interruption of view and air movement, and encroachment upon solar access.

Land Use

Objective LU-1 Establish a comprehensive citywide land use planning strategy to meet economic development objectives, achieve efficient and equitable use of resources and infrastructure, and create an attractive living environment.

Policy LU-1-a Promote Development within the Existing City Limits as of December 31, 2012. Promote new development, infill, and rehabilitation of existing building stock in the Downtown Planning Area, along BRT corridors, in established neighborhoods generally south of Herndon Avenue, and on other infill sites and vacant land within the City.

Policy LU-1-b Land Use Definition and Compatibility. Include zoning districts and standards in the Development Code that provide for the General Plan land use designations and create appropriate transitions or buffers between new development with existing uses, taking into consideration the health and safety of the community.

Policy LU-1-c Provision of Public Facilities and Services. Promote orderly land use development in pace with public facilities and services needed to serve development.

Policy LU-1-d Orderly Transition of Existing Uses. Implement updates to the Fresno Municipal Code to provide for the orderly transition of existing, legal non-conforming uses on the BRT Corridors.

Policy LU-1-f Coordination with Fresno County Land Use Planning. Seek a Memorandum of Understanding (MOU) with the County of Fresno to prohibit development inconsistent with this General Plan on unincorporated land within the City's SOI.

Policy LU-1-g SOI Expansion. Maintain the City’s current SOI boundaries without additional expansion, except to allow for the siting of a maintenance yard for the California High Speed Train project and related industrial and employment priority areas proximate to and south of the SOI boundary between State Route 41 and State Route 99. Prohibit residential uses in the expansion area.

Objective LU-2 Plan for infill development that includes a range of housing types, building forms, and land uses to meet the needs of both current and future residents.

Policy LU-2-a Infill Development and Redevelopment. Promote development of vacant, underdeveloped, and re-developable land within the City Limits where urban services are available by considering the establishment and implementation of supportive regulations and programs.

Policy LU-2-b Infill Development for Affordable Housing. Establish a priority infill incentive program for residential infill development of existing vacant lots and underutilized sites within the City as a strategy to help to meet the affordable housing needs of the community.

Policy LU-2-e Neighborhood Preservation. Incorporate standards in the Development Code to preserve the existing residential quality of established neighborhoods.

Policy LU-2-f Lot Consolidation. Include incentives in the Development Code for streamlining the consolidation of very small, oddly shaped, and difficult to develop lots to create more efficient and developable parcels.

Objective LU-3 Support the successful fulfillment of plans when adopted for the Downtown Planning Area

Policy LU-3-b Mixed Use Urban Corridors that Connect the Downtown Planning Area. Support the development of mixed-use urban corridors that connect the Downtown Planning Area with the greater Fresno-Clovis Metropolitan Area with functional, enduring, and desirable urban qualities along the Blackstone Avenue, Shaw Avenue, California Avenue, and Ventura Avenue/Kings Canyon Road corridors, as shown on Figure LU-1: General Plan Land Use Diagram.

Policy LU-3-c Zoning for High Density on Major BRT Corridors. Encourage adoption of supportive zoning regulations for compact development along BRT corridors leading to the Downtown Core that will not diminish the long-term growth and development potential for Downtown.

Objective LU-5 Plan for a diverse housing stock that will support balanced urban growth, and make efficient use of resources and public facilities.

Policy LU-5-a Low Density Residential Uses. Promote low density residential uses only where there are established neighborhoods with semi-rural or estate characteristics.

- Policy LU-5-b Medium-Low Density Residential Uses.** Promote medium-low density residential uses to preserve existing uses of that nature or provide a transition between low and medium density residential areas.
- Policy LU-5-c Medium Density Residential Uses.** Promote medium density residential uses to maximize efficient use of residential property through a wide range of densities.
- Policy LU-5-d Medium-High Density Residential Uses.** Promote medium-high density residential uses to optimize use of available or planned public facilities and services and to provide housing opportunities with convenient access to employment, shopping, services, and transportation.
- Policy LU-5-e Urban Neighborhood Residential Uses.** Promote urban neighborhood residential uses to support compact communities and Complete Neighborhoods that include community facilities, walkable access to parkland and commercial services, and transit stops.
- Policy LU-5-f High Density Residential Uses.** Promote high-density residential uses to support Activity Centers and BRT Corridors, and walkable access to transit stops.
- Policy LU-5-g Scale and Character of New Development.** Allow new development in or adjacent to established neighborhoods that is compatible in scale and character with the surrounding area by promoting a transition in scale and architectural character between new buildings and established neighborhoods, as well as integrating pedestrian circulation and vehicular routes.
- Policy LU-5-h Housing Offering Amenities.** Support housing that offers residents a range of amenities, including public and private open space, landscaping, and recreation facilities with direct access to commercial services, public transit, and community gathering spaces.
- Policy LU-5-I Housing for Seniors.** Facilitate the development of senior housing projects that are accessible to public transportation and services.
- Policy LU-5-j Campus-Centered Communities.** Encourage development of campus-centered communities by focusing growth around existing and planned academic facilities and by directing infrastructure to those areas.
- Objective LU-6** Retain and enhance existing commercial areas to strengthen Fresno’s economic base and site new office, retail, and lodging use districts to serve neighborhoods and regional visitors.
- Policy LU-6-a Design of Commercial Development.** Foster high-quality design, diversity, and a mix of amenities in new development with uses through the consideration of guidelines, regulations and design review procedures.

Policy LU-6-b Commercial Development Guidelines. Consider adopting commercial development guidelines to assure high-quality design and site planning for large commercial developments, consistent with the Urban Form policies of this Plan.

Policy LU-6-c Appropriate Office Development. Promote the establishment of development standards for new offices, addressing location, size, and intensity necessary to meet the City's needs. Integrate and support employment in adjacent and proximate neighborhoods.

Objective LU-7 Plan and support industrial development to promote job growth.

Policy LU-7-a Incentives for a Diversity of Industries, Increased Food Processing and Manufacturing, and Related Employment Opportunities in Fresno. Use the City's Capital Improvement Program to set priorities for locations and timing of water, sewer, and transportation infrastructure investments by the City and initiate implementation programs to encourage development of targeted industries as identified under Policy ED-3-c, in employment land use areas designated on Figure LU-1: Land Use Diagram.

Policy LU-7-b Business and Industrial Parks. Promote business and industrial park sites that are of sufficient size, unified in design, and diversified in activity to attract a full range of business types needed for economic growth.

Policy LU-7-c Efficiency of Industrial Uses. Promote industrial land use clusters to maximize the operational efficiency of similar activities.

- Provide access to a range of transportation modes through plans and incentives, ensuring that local, regional, and national connections are available to industrial uses;
- Develop a strategy to promote rail-accessible sites for industries that need such capability; and
- Ensure timely access to the full range of urban services for industrial development by coordinating proposed plans with the annual and long-range City infrastructure planning.

Objective LU-8 Provide for the development of civic and institutional land uses to meet the educational, medical, social, economic, cultural, and religious needs of the community.

Policy LU-8-a Civic and Institutional Use Compatibility. Protect civic and institutional areas from incompatible uses that could affect their vitality and contributions to the city.

Policy LU-8-c Zoning for Public Facilities. Allow public facility uses in zoning districts where appropriate.

Policy LU-8-d Public Facilities and Institutions Meeting City Standards. Request that federal, State, and local agencies locating public facilities and institutions in the City or designated growth area, meet City standards for public streets and sidewalks, access, parking, water supply, wastewater disposal, landscaping, and amenities.

Objective LU-9 Plan land uses, design, and development intensities to supplement and support, and not compete with, the Downtown.

Policy LU-9-a Residential Locations. Plan for new residential uses and types in a manner that help make the Downtown Planning Area a convenient destination for employment and regional retail shopping.

Policy LU-9-b Activity Centers. Plan for future Activity Centers at appropriate locations that avoid competition with Downtown businesses.

Policy LU-9-c Primacy of Downtown. Maintain the Downtown mixed-use areas as the Primary Activity Center within the city with the tallest buildings to enhance its profile and visibility.

Buildings and Design

Objective D-1 Provide and maintain an urban image that creates a “sense of place” throughout Fresno.

Objective D-4 Preserve and strengthen Fresno’s overall image through new design review and create a safe, walkable and attractive urban environment for the current and future generations of residents.

Policy D-4-f Design Compatibility with Residential Uses. Strive to ensure that all new nonresidential land uses are developed and maintained in a manner complementary to and compatible with adjacent residential land uses, to minimize interface problems with the surrounding environment and to be compatible with public facilities and services.

Policy D-4-g Development Code Update for Design Concepts. Ensure that standards in the Development Code implement General Plan design concepts for each land use type.

Objective D-7 Continue applying local urban form, land use, and design policies to specific neighborhoods and locations.

Policy D-7-b Consider preparing new community, neighborhood, and/or Specific Plans for neighborhoods and locations that were covered by repealed plans.

Mobility and Transportation Chapter

The Mobility and Transportation Chapter, Chapter 4 of the General Plan, includes objectives and policies for all modes of transportation and users of streets and highways, transit, sidewalks and

trails, and bicycle transportation modes, as well as parking, goods movement strategies, and the City's airports.

Objective MT-1 Create and maintain a transportation system that is safe, efficient, provides access in an equitable manner, and optimizes travel by all modes.

Policy MT-1-d Integrate Land Use and Transportation Planning. Plan for and maintain a coordinated and well-integrated land use pattern, local circulation network and transportation system that accommodates planned growth, reduces impacts on adjacent land uses, and preserves the integrity of established neighborhoods.

Policy MT-1-e Ensure Interconnectivity Across Land Uses. Update development standards and design guidelines applicable to public and private property to achieve Activity Centers, neighborhoods and communities which are well connected by pedestrian, bicycle, appropriate public transportation, and automobile travel facilities.

Policy MT-1-f Match Travel Demand with Transportation Facilities. Designate the types and intensities of land uses at locations such that related travel demands can be accommodated by a variety of viable transportation modes and support Complete Neighborhoods while avoiding the routing of excessive or incompatible traffic through local residential streets.

Objective MT-2 Make efficient use of the City's existing and proposed transportation system and strive to ensure the planning and provision of adequate resources to operate and maintain it.

Policy MT-2-a Intensification of Bus Rapid Transit Corridors. Where traffic has previously been diverted to freeways, encourage incentives for more intense development along transportation corridors, such as the Blackstone Corridor, where there is now additional capacity.

Policy MT-2-c Reduce VMT through Infill Development. Provide incentives for infill development that would provide jobs and services closer to housing and multimodal transportations corridors in order to reduce citywide Vehicle Miles Traveled (VMT).

Resource Conservation and Resilience Chapter

The Resource Conservation and Resilience Chapter, Chapter 7 of the General Plan, establishes objectives and policies for the conservation of natural resources in Fresno. Air resources, including air quality and greenhouse gas emissions; water resources, including groundwater and waterways; energy resources; and land resources, including farmland and mineral resources, are address in this chapter.

Objective RC-2 Promote land uses that conserve resources.

Policy RC-2-a Link Land Use to Transportation. Promote mixed use, higher density infill development in multimodal corridors. Support land use patterns that make more

efficient use of the transportation system and plan future transportation investments in areas of higher-intensity development. Discourage investment in infrastructure that would not meet these criteria.

Healthy Communities Chapter

The Healthy Communities Chapter, Chapter 10 of the General Plan, focuses on subjects not fully discussed in other chapters pertaining to the relationships between the built, natural, and social environments and community health and wellness outcomes.

Objective HC-2 Create complete, well-structured, and healthy neighborhoods and transportation systems.

Policy HC-2-a Healthy Neighborhoods. Promote the design of Complete Neighborhoods whose physical layout and land use mix allow for walking to local stores and services, biking, and transit use; foster community pride; enhance neighborhood identity; encourage public safety; are family-friendly; and address the needs of residents of all ages and abilities.

Objective HC-3 Create healthy, safe, and affordable housing.

Policy HC-3-g Residential Compatibility. Consider developing a program with community stakeholders to address compatibility of industrial and heavy commercial uses and zoning with established neighborhoods.

Fresno Southeast Development Area Specific Plan

The Fresno SEDA Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to land use and planning:

Urban Form

Objective UF-1 Create complete neighborhoods in the Southeast Development Area that integrate housing, business and retail amenities. Implement a Southeast Development Area plan that balances and mixes housing, jobs, commercial businesses, services, and public facilities to help meet existing thresholds for lower vehicle miles traveled, reduced air pollution, and the efficient use of groundwater resources in compliance with the Sustainable Groundwater Management Act of 2014.

Policy UF-1.1 Land Use Diversity. Update the City Development Code to include the new SEDA zone districts and associated development standards to encourage land use diversity within the Plan Area.

Policy UF-1.6 Right-to-Farm. Establish right-to-farm practices in accordance with the Fresno County Right-to-Farm Ordinance to allow the continued operation of agricultural

activities which occur adjacent to new residential developments. Require buffers between new residential development and existing farmlands.

Policy UF-1.7 Buffers Between Uses. Require buffers between new industrial development and existing neighborhoods. Investigate opportunities to develop resilient green buffers between existing industrial and residential uses. Light industrial areas may serve as buffers between heavy industrial and other land uses.

Objective UF-2 Provide a mix of Regional, Community, and Neighborhood Town Centers where individuals can live, work and play.

Policy UF-2.1 Network of Town Centers. The SEDA will include mixed-use Regional, Community, and Neighborhood Town Centers that form a network of complementary employment, commercial, cultural, and civic opportunities linked by multimodal transportation systems.

Policy UF-2.2 Development Code Update. The size, density, composition, and building character of Mixed-Use Districts will be consistent with the zone district standards set forth in the SEDA Development Code update. In addition, the Plan will call upon the City of Fresno's Department of Public Work Standards, the Active Transportation Plan and the Fresno Area Express (FAX) transit plans to implement streetscape design and non-auto circulation elements.

Objective UF-3 Foster a community of tight-knit residential districts.

Policy UF-3.2 Development Code Update. The size, density, composition, and building character of Residential Districts will be consistent with the SEDA zone district standards implemented through a Development Code update. Streets and non-auto circulation elements will be implemented according to the standards set in the Development Code.

Objective UF-4 Attract high-profile businesses to create bustling and desirable Employment Districts.

Policy UF-4.2 Development Code Update. The size, density, composition, and building character of Employment Districts will be consistent with the proposed SEDA zone district standards set forth in the SEDA Development Code update. In addition, the Plan will draw upon the City of Fresno's Department of Public Works Standards, the Active Transportation Plan, and the Fresno Area Express (FAX) transit plans to implement streetscape design and non-auto circulation elements.

Objective UF-6 Integrate urban form with a multimodal transportation network.

Policy UF-6.1 Land Use/Circulation Integration. The network of streets within the Mixed-Use Districts, Residential Districts and Employment Center districts will not only link

districts to one another, but to other designations beyond the Plan Area, as shown in Table 2.1 Network of Streets below.

Table 2.1: Network of Streets

Category	Arterial	Collector	Local
Mixed-Use Districts			
Regional Town Center	X	X	X
Community Town Center	X	X	X
Neighborhood Center	—	X	X
Residential Districts			
Mixed Residential	X	X	X
Neighborhood Residential	—	X	X
Rural Residential	—	X	X
Rural Cluster Residential	—	X	X
Employment Centers			
Office Center	X	X	X
Flexible Research and Development	X	X	X
Institutional	X	X	X
Source: City of Fresno 2020.			

Housing Choice and Affordability

Objective HC-1 Mix housing types and designs throughout the Plan Area to respond to the needs of all household types. The Southeast Development Area Specific Plan accommodates a diverse range of household demographics and preferences with housing types that range from higher-density multi-family homes to medium lot single-family homes.

Policy HC-1.1 Age in Place Housing. Plan for housing suitable for different stages of life, including smaller, more affordable units for first-time buyers, singles, young couples, families, and older homeowners, as well as opportunities for multi-generational housing, housing for seniors and long-term care/assisted living facilities.

Policy HC-1.2 Family and Large Household Housing. Encourage the development of housing to serve larger households and households with children, particularly in areas served by high-capacity transit. The City of Fresno should set targets for the provision of two-plus bedroom homes for purchase and rent.

Policy HC-1.3 Accessory Dwelling Units. Allow the development of accessory dwellings or “granny flats” to increase density and affordability while maintaining character.

Policy HC-1.4 Accessible Housing. Construct housing with practical features that provide basic access and functionality for people of all ages and various mobility and ambulatory capabilities.

Policy HC-1.6 Compatibility Between Uses. Provide for urban edge transitions that protect existing rural residential and agricultural uses from new development.

Objective HC-2 Build housing affordable to all Fresno residents using an array of regulatory, market-based, and other strategies.

Policy HC-2.1 Provision of Affordable Housing. Provide funding assistance, partnership support, and take other actions as necessary to support the construction of new affordable housing within the SEDA to meet RHNA-based targets as specified in the City of Fresno General Plan Housing Element.

The Housing Element details a comprehensive set of programs to provide an adequate supply of affordable housing. Programs entail actions by the Planning and Development Department, Fresno Housing (previously known as the Fresno Housing Authority), private and non-profit developers and others as applicable. Development in the SEDA shall be consistent with the Housing Element. Current programs include:

- Land use planning to provide for multi-family units, increased housing density, and mixed-use development.
- Actions to construct housing for specific groups, including farmworkers; special needs persons; homeless and recently homeless persons; very low-income large families; extremely low-, very low-, and low-income seniors; and other extremely low- and very low-income households.
- Strengthening partnerships with affordable housing developers.
- Increasing opportunity through an equitable communities' program, which calls for location of affordable housing in areas of high opportunity .
- Preventing Displacement.
- Make incentives available to all new residential developments that target at least 25 percent of new units for families earning 80 percent of the area median income or below.

For more detailed information, please refer to the Fresno General Plan Housing Element.

Policy HC-2.3 Distribution of Housing. Promote affordable housing opportunities that are distributed throughout the Southeast Development Area to avoid concentration in any one area.

Objective HC-3 Link housing and transportation together to limit family expenditures on both housing and transportation. The multimodal transportation network connects housing and jobs within the Southeast Development Area and to other major

regional centers, facilitating internal travel by non-automobile means. The Urban Form Chapter addresses the location, distribution, and standards for transportation infrastructure investment, combining transportation options with land use development to ultimately lower travel costs for SEDA residents and employees.

Policy HC-3.1 Coordinated Land Use and Transportation Planning. Support regional and citywide planning efforts, such as the Regional Transportation Plan and Sustainable Communities Strategy, the Fresno General Plan, and the City’s updated Greenhouse Gas Reduction Plan that encourage the development of housing near new and existing public transportation investments.

Policy HC-3.2 Travel. Encourage accessible, mixed-use development that incorporates housing and jobs, while lowering daily vehicle miles traveled.

Policy HC-3.3 Smart Land Uses. Build smaller-lot single-family and multi-family housing types which use less energy and water than larger units.

Community Farming and Agriculture

Objective CF-1 Conserve strategic farmland outside the Southeast Development Area most likely to sustain economically viable agriculture over the long term. While the efficient, compact development pattern of the SEDA Specific Plan reduces development pressure on surrounding agricultural land, it must be bolstered by policies that directly limit farmland conversion. These policies require inter-governmental coordination between the cities of Fresno, Sanger, Clovis, Fresno County, and other neighboring cities.

Policy CF-1.1 Efficient Land Use. Reduce development pressure on farmland outside the City of Fresno Sphere of Influence (SOI) by adopting the compact, efficient land use pattern of the SEDA Specific Plan. The SEDA Plan clusters homes and jobs at more than twice the density of current trend development.

Policy CF-1.2 Future Growth Planning. Support planning efforts that channel new growth to areas already committed to urban uses inside the current SOIs of incorporated cities in Fresno County.

Policy CF-1.3 Conversion of Farmland to Nonagricultural Uses. The City of Fresno will strongly discourage the conversion of strategic farmland outside its current SOI.

- **Strategic Farmland Mapping Project.** Support the Strategic Farmland Mapping Project conducted by the Fresno Council of Governments to identify the ‘best’ or most strategic locations to preserve farmland outside the current SOIs of incorporated cities in Fresno County.

Policy CF-1.4 Agricultural Farm Buffer. Establish an agricultural farm belt along the eastern edge of the SEDA. Farm belts provide opportunities to link agricultural land preservation

and increased urban efficiency with local food production in ways that positively support local economies, farms, and farmers.

Objective CF-2 Create a long-term transition zone between urban uses in the City of Fresno and agricultural land in Fresno County. Buffering urban and adjoining agricultural land uses reduce conflicts that can arise due to noise, pollution, or traffic.

Policy CF-2.1 Rural Cluster Districts. Establish Rural Cluster Districts at the eastern edge of the site, as depicted in the SEDA Plan. Rural clusters consist of clustered residential development surrounded by common land held under easements for agricultural or recreational use.

- **Rural cluster farming.** Allow small-scale and community farming within Rural Cluster Districts.

Policy CF-2.2 Passive Recreation. Encourage the creation of regional trails and open spaces in Rural Cluster Districts that connect urban uses to agricultural uses with trails for pedestrians, bicyclists, and equestrians.

- What is the role of rural cluster development?
 - A transitional buffer. Urban areas and large agricultural operations cannot always sit side-by-side. Noise, dust, and pesticides from farms can pose health concerns for residents, while farmers need space to move machinery and goods. Rural clusters along the eastern edge of SEDA form a transition between the urban area and the agricultural lands beyond.
 - An attractive residential option. Rural clusters offer a rural lifestyle within an environmentally responsible land use framework that promotes active farming and open space preservation.
 - A means to preserve land. Rural cluster lands can be used for organic small-scale farming, equestrian activities, or other uses compatible with the nearby homes. The vast majority of the land is preserved as viable agricultural land or open space.

Objective CF-3 Promote community farming to provide opportunities for entrepreneurs and families to grow food for commercial and household production. Community farming is intended, in part, to diversify agriculture and make residents of the Southeast Development Area stakeholders in the success of Fresno County agriculture.

Policy CF-3.1 Organic and Pesticide-Free Farming. Promote ecologically sensitive farming methods that are safe for farm workers, consumers, and residents by restricting pesticide use and promoting integrated pest management practices within the SEDA.

Policy CF-3.2 Small farms. Create opportunities for entrepreneurs to grow food for commercial production on small plots of land (2 to 20 acres) that can provide economic opportunities for current and future Fresno residents.

- **Location.** Small farms in the SEDA should be located adjacent to and within open space corridors and within Rural Cluster Districts. If located within a Planned Development or Multi-Family Residential Complex, the Homeowner's Association and/or property management company shall be responsible for the site and shall designate a liaison between the property owner(s) and the City. (City of Fresno Development Code-15-2720).
- **Access.** Public access to small farms should be limited or completely restricted; fencing may be required.
- **Management.** Management structures of small farms shall be determined as appropriate. Small farms may be privately owned or managed by non-profit organizations.

Policy CF-3.3 Community Farming. Create and expand a viable community farming program that promotes an appreciation of food and local ecology, instills a sense of stewardship and community, and provides a recreational activity.

- **Community/Neighborhood Gardens.** Create and support neighborhood gardens within local communities. Neighborhood gardens, such as Yo'Ville Community Garden in Southwest Fresno, are woven into the fabric of centers and residential areas, providing households with opportunities to grow some of their own produce and meet with other members of the community.
 - **Location.** Neighborhood gardens shall be integrated into Neighborhood Centers, open spaces, and other locations that place them within walking distance of most residents' homes.
 - **Access.** Access to community spaces can vary. Gardens can be open to the public, or only to designated users.
 - **Management.** Management structures of community spaces shall be determined as appropriate. Neighborhood gardens can be owned by a city or county agency or by a private landowner, and operated by a neighborhood collective, community garden association, non-profit, or city/county parks and recreation department that leases small plots of the garden to community members. Some neighborhood gardens are independent entities, while some jurisdictions have neighborhood garden programs that oversee all the gardens in a jurisdiction.
 - **Funding and staff assistance.** The City of Fresno shall encourage neighborhood organizations to seek funding for the neighborhood garden program and/or facilitate assistance through the Fresno Parks, After School, Recreation, and Community Services Department or other agency/organization.

- **School Gardens.** Support and foster the integration of school gardens within neighborhood schools, such as the school garden located at Kepler Neighborhood School in Downtown Fresno. School gardens can serve as outdoor classrooms where students learn about soil, botany, natural cycles, nutrition, and basic gardening principles in a hands-on setting.
 - **Location.** School gardens should be located on school grounds, or within a very short walk of a school. When possible, school gardens should be planned upon new school construction in order to maximize joint-use opportunities with the City of Fresno Parks, After School, Recreation, and Community Services Department.
 - **Access.** Access should be controlled based on school district policies.
 - **Management.** Management structures shall be determined as appropriate. School gardens are typically managed by at least one garden coordinator who works closely with school administration or one or more dedicated teachers.
 - **School gardens working group.** Create a working group of teachers, students, and residents to explore the development of school garden programs in the Clovis and Sanger Unified School Districts.
- **Community Orchards.** Support and preserve community orchards for both new and existing orchards within the SEDA. Community orchards can be integrated into the community's open space network, serving as park-like features and enhancing connections to agriculture.
 - **Location.** Community orchards can be integrated into public open spaces or associated with private development.
 - **Access.** Community orchards should be unfenced, with high levels of public access.
 - **Management.** Management structures shall be determined as appropriate. In a typical model, residents help to care for the orchards and pay fees to fund professional gardeners.

Objective CF-4 Support of Agriculture. Support Fresno agriculture, agricultural industries, and farm employees through economic development, educational training, and social programs within the Southeast Development Area.

Policy CF-4.1 Economic competitiveness. Support efforts to promote and market agricultural products to maintain the long-term viability of Fresno-area farmers.

- **Direct Marketing.** Implement direct marketing of locally-grown produce from Fresno County and the Southeast Development Area through farmer's markets, community-supported agricultural programs, farm- to-restaurant programs, produce stands, and other mechanisms.
- **Branding of local produce.** Utilize the opportunities in SEDA to support and establish Fresno as a center for locally-grown produce serving the Central Valley and California. Establish a "Fresno Grown" brand and support the "California Grown" program to promote locally-grown produce.

- **Agricultural Tourism.** Encourage agricultural tourism in the SEDA to educate visitors and generate income and support for farms.
- **Value-Added Processing and Distribution.** Provide the opportunity for area farmers to utilize Flexible Research and Development districts for agricultural processing and distribution.

Policy CF-4.2 Educational training. Support education and technical assistance for farm employees and aspiring farm owners through direct relationships with educational and non-profit institutions.

- **Public Institutions.** Encourage public institutions, including Fresno State University, the State Center Community College District, and other educational institutions, to provide assistance and training to farm employees.
- **Non-Profit Institutions.** Develop relationships with non-profit agricultural training organizations and encourage those organizations to locate in the Southeast Development Area.

Policy CF-4.3 Farm worker housing and social services. Encourage the long-term economic viability of Fresno County agriculture by supporting the housing and social service needs of farm workers.

- **Housing.** Provide safe, affordable, efficient housing for farm workers, permitting housing on agricultural lands and other appropriate sites within the current Sphere of Influence (refer to General Plan Housing Element).
- **Social Services.** Encourage organizations that support farm workers through family assistance programs, translation assistance, financial literacy training, medical assistance, and other services, to locate within the Southeast Development Area.

Policy CF-4.4 Strategic plan for agriculture. Encourage the long-term economic viability of Fresno County agriculture by creating a strategic plan that comprehensively addresses the needs of farmers and farmworkers. The plan should be developed in partnership with the County and private agricultural institutions. The plan should focus on, but is not limited to:

- Develop a pathway for protection of agricultural land at risk of conversion to nonagricultural uses through a review of why and to what extent agricultural land is being converted to other uses.
- Identify how to support agricultural land conservation and what economic, environmental, public health co-benefits arise from conservation.
- Analyze the existing agricultural land base and its function in the regional food system.

- Recognize and protect environmental co-benefits of conserving agricultural lands and analyze how to reduce greenhouse gas emissions.
- Identify the benefit of agricultural land for priority populations such as beginning or Veteran farmers and ranchers; residents of disadvantaged or low-income communities; or California Native American Tribes.

Greenhouse Gas Reduction and Conservation

Objective RC-1 Meet Statewide targets set for greenhouse gas emissions reductions as set forth in the City’s updated GHG Reduction Plan, adopted in 2021.

Policy RC-1.1 Land Use Strategies. Link land use and transportation by incorporating the following components into SEDA’s land use plan:

- A. Compact Development. Maximize opportunities in the SEDA for compact, higher density development in order to provide more housing, conserve resources, and reduce travel distances.
- B. Design the Neighborhood, Community and Regional Town Centers in the SEDA as Mixed-Use Districts that include ground floor retail, civic and other commercial uses and upper floors of office and residential uses. Locate mixed-use development along high-quality transit corridors such as the Ventura/Kings Canyon Corridor that will serve SEDA’s Regional Town Center. Incentivize developments that are mixed use, defined as pedestrian-friendly development that blends two or more residential, commercial, cultural or institutional uses, one of which must be residential.
- C. Pedestrian-Oriented Development. Providing pedestrian-friendly infrastructure such as sidewalks, paths, and direct connections to neighboring uses such as shopping, schools, libraries and parks increases the potential for people to make trips on foot, bicycle or transit instead of by car. New development should include all sidewalks, paths, trails and facilities required by the General Plan, the Active Transportation Plan and the SEDA.
- D. Incentives for Pedestrian-Oriented Anchor Retail. Consider adopting and implementing incentives for new pedestrian-friendly anchor retail to be applied within the SEDA’s Regional, Community, and Neighborhood Town Centers.
- E. Complete Streets. Ensure that all streets in the SEDA comply with the City’s Complete Streets Policy.
- F. Transit Oriented Development. Design land uses and integrate development site plans along high-quality transit corridors such as the Ventura/Kings Canyon Corridor, with transit-oriented development that supports transit ridership and convenient pedestrian access to bus stops and station stops.

Objective RC-3 Promote water conservation and the long-term sustainability of water resources within the Southeast Development Area.

Policy RC-3.1 Smart, Compact Land Use. Build compact communities that include more small-lot and multi-family housing options which require less water for outdoor irrigation.

Open Space, Schools, and Public Facilities

Objective OS-14 Provide water, stormwater, and wastewater infrastructure necessary to serve development in the SEDA.

Policy OS-14.2 Curb, Gutter and Sidewalk Infrastructure. Require all necessary infrastructure, such as curb, gutter, sidewalk, street trees, public benches, bike parking and amenities to be installed prior to the development of new residential neighborhoods and associated facilities.

Fresno Municipal Code

Chapter 15 of the Municipal Code outlines the City's Zoning Ordinance, which provides a guide for the physical development of the City in order to achieve the arrangement of land uses depicted in the approved General Plan, as well as implement goals, objectives, and policies of the approved General Plan. At the time of preparation of this document, the City of Fresno Municipal Code has been most recently updated on March 14, 2023. The Development Code provides regulations of land and structures in order to protect and promote health, safety, and welfare of the public, and to ensure the orderly development of the city.

Methodology

FirstCarbon Solutions (FCS) evaluated the potential for land use impacts through review of applicable land use policy documents. FCS reviewed the General Plan and the Municipal Code to identify applicable policies and provisions that pertain to the proposed project. Finally, FCS reviewed the proposed SEDA Specific Plan for consistency with the General Plan and Municipal Code.

3.11.4 - Thresholds of Significance

The Lead Agency utilizes the criteria in the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist as thresholds to determine whether land use and planning impacts are significant environmental effects.

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts to resources are significant. These questions reflect the input of planning and environmental professionals at the Governor's Office of Planning and Research and the California Natural Resources Agency, based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. Accordingly, the City has derived its significance criteria, based in part, on the questions posed in Appendix G. These significance criteria are as follows:

The project would have a significant impact on the environment if it would:

- 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.

3.11.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where appropriate.

Divide an Established Community

Impact LAND-1: The proposed project would not physically divide an established community.

Impact Analysis

Implementation of the proposed project would have a significant environmental impact if it were configured in such a way as to create a physical barrier or other physical division within an established community. A typical example would be a project which involved a continuous right-of-way, such as a roadway, which would divide an established community and impede access between parts of the community. The Specific Plan does not contemplate or authorize any such physical changes to an established community.

As described in Chapter 2, *Project Description*, the Plan Area's land uses are predominantly agricultural and rural residential. There is currently one school, Lone Star Elementary School, which is within the Plan Area. The City has expanded rapidly over the past 20 years, and development in the newly urbanized areas has characteristics of suburban sprawl. The new residential developments are often disconnected from each other and not in close proximity to commercial areas or public facilities. New commercial centers are large and auto-oriented. This growth has highlighted the necessity to plan growth in the City of Fresno's SOI more efficiently. The Specific Plan does not propose or approve specific development; rather, the Specific Plan provides a framework for the cohesive development of the Plan Area. In addition, the Specific Plan includes general goals and policies which will regulate future development. Implementation of the proposed project would allow for planned development and growth while promoting the emergence of new communities. Because the proposed project would link a series of complete communities and mixed-use centers with a multimodal transportation network, the proposed project would result in increased connectivity. General Plan Policy LU-3-b would support the development of mixed-use urban corridors that connect the Downtown Planning Area with the greater Fresno-Clovis Metropolitan Area. Objective LU-4 is designed to enhance existing residential neighborhoods. Objective LU-6 would retain and enhance existing commercial areas to strengthen Fresno's economic base and site new office, retail, and lodging use districts to serve neighborhoods and regional visitors. Objective LU-8 would provide for the development of civic and institutional land uses to meet the educational, medical, social, economic, cultural, and religious needs of the community. Therefore, the proposed project would increase connectivity and support, strengthen, and connect new communities. The proposed project would not adversely impact community connectivity nor divide the physical arrangement of the community. As a result, a less than significant impact would occur.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Conflict with Applicable Plans, Policies, or Regulations

Impact LAND-2: 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.

Impact Analysis

The General Plan Guidelines published by the State Office of Planning and Research define consistency as follows: “An action, program, or project is consistent with the General Plan if, considering all its aspects, it will further the objectives and policies of the General Plan and not obstruct their attainment.” Therefore, the standard for analysis used in this Recirculated Draft PEIR is based on general agreement with the policy language and furtherance of the policy intent (as determined by a review of the policy context). A comparison of the proposed Plan’s characteristics with all applicable objectives outlined in the General Plan as they relate to land use issues are presented in Table 3.11-1; as shown, the proposed project is consistent with these objectives. Therefore, impacts would be less than significant.

Table 3.11-1: General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
Economic Development	ED-1	Support economic development by maintaining a strong working relationship with the business community and improving the business climate for current and future businesses.	Consistent. The proposed project supports economic development and is designed to create more opportunity for current and future residents and businesses. The proposed project would improve the business climate by locating employment centers in proximity to residential areas and regional transit connections and would accommodate approximately 37,000 jobs. Policy UF-1.3 emphasizes employment-generating development within the Plan Area to expand Fresno’s employment base beyond traditional industries.
	ED-2	Support local business start-ups and encourage innovation by improving access to resources and capital and help overcome	Consistent. Policy EO-1.1 would broaden access to small business financing by expanding on the City’s microlending programs to

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
		obstacles hampering economic development.	support small, local businesses. Policy EO-4.1 would support the development of small businesses by encouraging developments that can accommodate small-scale enterprises.
	ED-3	Attract and recruit businesses and offer incentives for economic development.	Consistent. Policy RC-1.1 would incorporate incentives for new pedestrian-friendly anchor retail to be applied within the Plan Area's Regional, Community, and Neighborhood Town Centers.
	ED-4	Cultivate a skilled, educated, and well- trained workforce by increasing educational attainment and the relevant job skill levels in order to appeal to local and non-local businesses.	Consistent. Policy EO-1.2 would build on Fresno's current workforce development efforts by providing career technical education, apprenticeship, and other upskilling opportunities for those who live or work in SEDA. Policy EO-2.3 would establish partnerships with State Center Community College to promote workforce training programs that can support local business growth.
Urban Form, Land Use, and Design	UF-1	Emphasize the opportunity for a diversity of districts, neighborhoods, and housing types.	Consistent. The Housing Choice and Affordability chapter of the SEDA Specific Plan accommodates a variety of household demographics with a diverse range of housing types, from medium- and higher-density multi-family types, to small and medium-lot single-family options. It utilizes a regulatory and market-based approach to create housing at all income levels. The plan also builds on a definition of affordability that considers household transportation burdens as a component of housing costs. Policy HC-1.1 is to plan for integrated neighborhood housing suitable for different stages of life, including smaller, more affordable units for first-time buyers, singles, young couples, families, and older homeowners, as well as opportunities for senior citizen housing and long-term

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
			care/assisted living facilities. Policy HC-2.1 would provide funding assistance, partnership support, and take other actions as necessary to support the construction of new affordable housing within the SEDA.
	UF-12	Locate roughly one-half of future residential development in infill areas— defined as being within the City on December 31, 2012— including the Downtown core area and surrounding neighborhoods, mixed-use centers and transit-oriented development along major BRT corridors, and other non-corridor infill areas, and vacant land.	Consistent. The proposed project is consistent with the City’s strategy to focus on infill development within existing City limits. The proposed project would minimize the City’s outward expansion while promoting vibrant, sustainable communities.
	UF-13	Locate roughly one-half of future residential development in the Growth Areas—defined as unincorporated land as of December 31, 2012 SOI—which are to be developed with Complete Neighborhoods that include housing, services, and recreation; mixed-use centers; or along future BRT corridors.	Consistent. The proposed project is a comprehensive plan for the nearly 9,000-acre Southeast Growth Area. The proposed project concentrates residential development in Neighborhood Town Centers, consistent with the General Plan concept of complete neighborhoods.
	UF-14	Create an urban form that facilitates multi-modal connectivity.	Consistent. Policy CF-2.2 encourages the creation of regional trails and open spaces in Rural Cluster Districts that connect urban uses to agricultural uses with trails for pedestrians, bicyclists, and equestrians. Policy RC-1.1 would provide pedestrian-friendly infrastructure such as sidewalks, paths, and direct connections to neighboring uses such as shopping, schools, libraries, and parks increases the potential for people to make trips on foot, bicycle, or transit instead of by car.
	LU-2	Plan for infill development that includes a range of housing types, building forms, and land uses to meet the needs of both current and future residents.	Consistent. The proposed project provides for the development of a range of housing types, building forms, and land uses to meet the needs of both existing and future residents.

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
	LU-4	Enhance existing residential neighborhoods through regulations, code enforcement, and compatible infill development.	Consistent. The proposed project would design and implement a vision that would allow new growth to occur without negatively affecting existing neighborhoods.
	LU-5	Plan for a diverse housing stock that will support balanced urban growth, and make efficient use of resources and public facilities.	Consistent. The proposed project would design and implement a vision that would allow the City to grow in ways that equitably expands the economy and housing stock while protecting public health. The proposed project represents an opportunity to meet emerging market demands, provide much-needed diversity in housing stock, and enrich communities with safe, walkable, and inspiring urban environments.
	LU-6	Retain and enhance existing commercial areas to strengthen Fresno’s economic base and site new office, retail, and lodging use districts to serve neighborhoods and regional visitors.	Consistent. Neighborhood Town Centers would serve as focal points of adjacent residential areas and would provide the majority of SEDA residents with essential walk, bike, transit, and short-drive access to civic services and amenities, including elementary schools, local parks, community gardens, and other services.
	LU-7	Plan and support industrial development to promote job growth.	Consistent. Policy EO-4.3 would promote the growth of manufacturing, distribution and research and development employment in the industrial areas of the SEDA.
	LU-8	Provide for the development of civic and institutional land uses to meet the educational, medical, social, economic, cultural, and religious needs of the community.	Consistent. The proposed project includes seven Community Town Centers that provide commercial, civic, and other services to meet the needs of multiple neighborhoods and Community Town Center residents and employees. Policy UF-1.5 is to build public infrastructure, facilities, and parks that meet the needs of Plan Area residents. Policy RC-1.1 Design the neighborhood, community, and regional town centers in SEDA as mixed-use centers that include

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
			ground floor retail, civic and other commercial uses and upper floors of office and residential uses.
	LU-9	Plan land uses, design, and development intensities to supplement and support, and not compete with, the Downtown.	Consistent. The proposed project is a comprehensive plan for the nearly 9,000-acre Southeast Growth Area, located to the east of the Downtown. The proposed project concentrates residential development in Neighborhood Town Centers, consistent with the General Plan concept of complete neighborhoods. These uses would support the Downtown but would not compete with the Downtown.
	D-1	Provide and maintain an urban image that creates a “sense of place” throughout Fresno.	Consistent. The SEDA Plan supports the preservation of rural landscapes and resources, historically significant buildings, districts, sites, landscapes, and other features to contribute to its sense of place. Policy CR-3.6 incorporates historic sites, infrastructure, and landscape features into new developments to conserve resources and preserve the area’s vernacular landscape and “sense of place.” Policy CF-3.4 instills a sense of stewardship and community and provides a recreational activity by expanding a viable community farming program. Policy RC-1.7 includes development of a tree palette that reinforces the SEDA’s sense of place.
	D-3	Create unified plans for Green Streets, using distinctive features reflecting Fresno’s landscape heritage.	Consistent. Policy RC-1.7 includes development of a tree palette that reinforces a sense of place, reflects native species, and includes tree species with high carbon storage potential. Trees would meet parks shading targets noted in the Parks Master Plan. Shade trees would delineate corridors and the boundaries of urban areas, and provide tree canopy for bike lanes, sidewalks, parking lots, and trails.

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
	D-4	Preserve and strengthen Fresno’s overall image through design review and create a safe, walkable, and attractive urban environment for the current and future generations of residents.	Consistent. The proposed project is designed to enrich the community with safe, walkable, and inspiring urban environments.
	D-5	Maintain and improve community appearance through programs that prevent and abate blighting influences.	Consistent. The proposed project is a comprehensive plan to address wide-ranging infrastructure, housing, employment, environmental, fiscal, and community challenges associated with accommodating a large increment of the City’s growth.
	D-6	Encourage design that celebrates and supports the cultural and ethnic diversity of Fresno.	Consistent. By containing development, the proposed project supports the preservation of rural landscapes and resources located outside the area. The Cultural and Historic Resources chapter contains policies to protect historic resources. Policy CR-1.2 would limit the conversion of culturally significant rural areas outside the current Fresno SOI by implementing the Farmland Conservation Model Program. Policy CR-2.2 would encourage schools and other institutions to emphasize agricultural processes, preservation, and interpretation of farming history within the SEDA.
	D-7	Continue applying local urban form, land use, and design policies to specific neighborhoods and locations.	Consistent. The proposed project includes policies related to urban form, land use, and design for neighborhood, community, and regional town centers.
Mobility and Transportation	MT-1	Create and maintain a transportation system that is safe, efficient, provides access in an equitable manner, and optimizes travel by all modes.	Consistent. The proposed project would contain multimodal transportation systems. Policy UF-5.2 would provide an efficient, safe, integrated, multimodal transportation system to and within the Plan Area via regional transit connections.
	MT-2	Make efficient use of the City’s existing and proposed	Consistent. Police RC-1.1 would locate mixed-use development

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
		transportation system and strive to ensure the planning and provision of adequate resources to operate and maintain it.	along high-quality transit corridors such as the Ventura/Kings Canyon Corridor that will serve the SEDA Regional Town Center.
	MT-4	Establish and maintain a continuous, safe, and easily accessible bikeways system throughout the metropolitan area to reduce vehicle use, improve air quality and the quality of life, and provide public health benefits.	Consistent. Policy RC-1.2 would ensure the SEDA is well-served by bicycle infrastructure, including bicycle lanes, bicycle paths and trails, and safe crossing infrastructure pursuant to the Active Transportation Plan.
	MT-5	Establish a well-integrated network of pedestrian facilities to accommodate safe, convenient, practical, and inviting travel by walking, including for those with physical mobility and vision impairments.	Consistent. Policy RC-1.1 would provide convenient pedestrian access to bus stops and station stops. Policy RC-1.2 would ensure the SEDA is well-served by pedestrian infrastructure, including sidewalks and safe crossing infrastructure pursuant to the Active Transportation Plan. Bus stops and stations will comply with the accessibility requirements of the Americans with Disabilities Act (ADA).
	MT-6	Establish a network of multi-purpose pedestrian and bicycle paths, as well as limited access trails, to link residential areas to local and regional open spaces and recreation areas and urban Activity Centers in order to enhance Fresno's recreational amenities and alternative transportation options.	Consistent. Policy UF-5.3 states that a network of pedestrian and bicycle routes, including dedicated trails, multi-purpose paths, and priority Bicycle Boulevards will serve work, school, and recreational trips. This extensive non-auto travel network will be coordinated with existing and proposed regional trails. Police OS-4.2 is to coordinate regional trail planning with Fresno County, the City of Clovis, and other jurisdictions as appropriate. The City of Fresno Active Transportation Plan calls for Class I Bicycle Paths along each canal in the SEDA. A regional Rails to Trails Bicycle Path is also planned to run parallel to California Avenue should existing railroad lines be vacated.
	MT-10	Establish parking standards that are strategically tuned to support neighborhoods, shopping districts	Consistent. Policy RC-1.3 contains Transportation Demand Policies that would include development of

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
		and employment centers that have a complete range of transportation choices.	a trip reduction parking strategy. Policy UF-7.1 would develop, facilitate, and monitor an ongoing and comprehensive parking program within SEDA.
Parks, Open Space, and Schools	POSS-1	Provide an expanded, high quality and diversified park system, allowing for varied recreational opportunities for the entire Fresno community.	Consistent. The Open Space, Schools and Public Facilities chapter states that the SEDA will feature a range of parks of different sizes and roles, from small “pocket parks” to large, natural open spaces and agricultural areas. These will serve active and passive recreation needs, from playgrounds and sports fields to trails for walking and nature study. The open space system is envisioned as a vibrant outdoor public realm, playing a vital role in anchoring neighborhoods and supporting community life.
	POSS-2	Ensure that adequate land, in appropriate locations, is designated and acquired for park and recreation uses in infill and growth areas.	Consistent. The Open Space, Schools and Public Facilities chapter states that ongoing parks planning will ensure that the facilities and services provided respond closely to community needs. The Plan Area is located in a Growth Area. Policy UF-1.5 is to build public infrastructure, facilities, and parks that meet the needs of Plan Area residents. Policy OS-3.5 would engage the public in the parks planning process to ensure that parks respond to community needs.
	POSS-8	Work cooperatively with school districts to find appropriate locations for schools to meet the needs of students and neighborhoods.	Consistent. Major civic buildings such as schools will serve as focal points of public spaces. Pursuant to Policy PF-1.1, the City shall work with the Clovis Unified and Sanger Unified school districts to establish specific locations for high schools and middle schools.
Public Utilities and Services	PU-1	Provide the level of law enforcement and crime prevention services necessary to maintain a safe, secure, and stable urban living	Consistent. The proposed project would provide law enforcement

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
		environment through a Police Department that is dedicated to providing professional, ethical, efficient and innovative service with integrity, consistency and pride.	<p>and crime prevention through the following policies:</p> <p>Policy PF-5.1 Provision of Police Services—Provide police services in the SEDA in accordance with the policies of the City of Fresno General Plan. If deemed necessary, the City of Fresno Planning and Development Department, through coordination with public safety agencies, can adjust these policies.</p> <p>Policy PF-5.3 Coordination with Police and Fire Departments – The City of Fresno Planning and Development Department shall work with the Police and Fire departments as appropriate to promote safe environments throughout the SEDA and ensure that services can be provided in a manner that is sensitive and responsive to the needs of the community. Coordination may address:</p> <ul style="list-style-type: none"> • Evaluation of design features for safety and crime prevention. • Siting of police and fire substations. • Facilitation of citizen involvement processes. <p>Policy OS-3.2 Park Design for Safety –Promote the use of Crime Prevention Through Environmental Design (CPTED) principles in park design. CPTED principles include natural surveillance, access control, territorial reinforcement, and space management in promoting safety and discouraging crime. See the Fresno Parks Master Plan, Chapter 5, Design Guidelines for Safety starting on page 141 and Chapter 9, Goal 5 on page 268.</p>
	PU-2	Ensure that the Fire Department's staffing and equipment resources are sufficient to meet all fire and emergency service level objectives	Consistent. In addition to the policies above, the proposed project would ensure fire department staffing and resources

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
		and are provided in an efficient and cost-effective manner.	are sufficient through the following policy: Policy PF-5.2 Provision of Fire Services—Provide fire services in the SEDA in accordance with the policies of the City of Fresno General Plan. If deemed necessary, the City of Fresno Planning and Development Department, through coordination with public safety agencies, can adjust these policies.
	PU-4	Ensure provision of adequate trunk sewer and collector main capacities to serve existing and planned urban development, consistent with the Wastewater Master Plan.	Consistent. According to Policy RC-6.4, the Water Section of the Greenhouse Gas Reduction and Conservation chapter will include a full Infrastructure Assessment (Water Supply Assessment [WSA]), as well as trunk infrastructure diagrams for water, wastewater, and stormwater systems. This work is being completed by the Fresno Metropolitan Flood Control District, and the City’s consultants as part of the preparation of this Recirculated Draft PEIR. Policy RC-6.4 includes water infrastructure planning. Informed by the results of the WSA, infrastructure plans will describe the following components of the wastewater systems for the SEDA: <ul style="list-style-type: none"> • Backbone wastewater treatment infrastructure. • Wastewater plan map (existing sewer mains, proposed trunk system, and proposed lift stations) if applicable.
	PU-6	Ensure the provision of adequate sewage treatment and disposal by utilizing the Fresno-Clovis Regional Wastewater Reclamation Facility as the primary facility, when economically feasible, for all existing and new development within the Metropolitan Area.	Consistent. A water treatment facility was constructed in 2018 and is designed with the latest energy conservation and renewable energy technology. It will serve the SEDA. The proposed project would include Policy PF-8.1 Provision of Water, Stormwater, and Wastewater Infrastructure—Provide water, stormwater, and wastewater infrastructure in

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
			<p>accordance with the policies of the Water Resources Element.</p> <p>The proposed project would ensure the provision of adequate sewage treatment through the following policy:</p> <p>Policy RC-6.2 Wastewater Treatment and Delivery—Evaluate the potential wastewater treatment and infrastructure needs necessary to meet Southeast Development Area demand.</p> <ul style="list-style-type: none"> • Site Water Treatment: Establish site-wide estimates for water treatment demand, reducing demand (as appropriate) after incorporating site design and efficiency measures. • Site Plan Delivery: Proposed wastewater supplies and delivery systems shall be identified at the time of development project approval to the satisfaction of the City of Fresno. <ul style="list-style-type: none"> — Wastewater Reductions—The City of Fresno and the developer will identify specific wastewater reduction measures required for the development proposal to move forward. Technical assistance will be provided by the City as needed, per Policy WR-2.7. — Detailed engineering—infrastructure planning and engineering will be conducted with the proposed demand reduction factors included.
	PU-7	Promote reduction in wastewater flows and develop facilities for beneficial reuse of reclaimed water and biosolids for management and distribution of treated wastewater.	<p>Consistent. Policy RC-1.5 would maintain current targets for recycling and re-use of all types of waste material in the city and enhance waste and wastewater management practices to reduce natural resource consumption. Policy RC-3.2 is to use treated</p>

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
			<p>wastewater for irrigation and other uses, consistent with applicable regulations, to minimize the required surface and groundwater needs of SEDA homes and businesses. Tertiary-treated wastewater would be used to irrigate parks. A water treatment facility was constructed in 2018 and is designed with the latest energy conservation and renewable energy technology. It will serve the SEDA.</p> <p>Additionally, Policy RC-1.5 includes a measure to evaluate the feasibility of “carbon foot printing” for the City’s wastewater treatment facilities.</p>
	PU-9	Provide adequate solid waste facilities and services for the collection, transfer, recycling, and disposal of refuse.	Consistent. Policy PF-6.1 would provide solid waste facilities and services for the collection, transfer, recycling, and disposal of refuse in accordance with the policies of the City of Fresno General Plan.
Historic and Cultural Resources	HCR-2	Identify and preserve Fresno’s historic and cultural resources that reflect important cultural, social, economic, and architectural features so that residents will have a foundation upon which to measure and direct physical change.	Consistent. The proposed project includes a Cultural and Historic Resources chapter containing several policies designed to identify and preserve the City’s historic and cultural resources. The proposed project would preserve elements of the area’s past as resources to enrich its future. As detailed planning and development proceeds, the City will continue to evaluate the cultural and historic significance of built and natural features within the area.
Noise and Safety	NS-1	Protect the citizens of the City from the harmful and annoying effects of exposure to excessive noise.	Consistent. Pursuant to Policy CF-2.2, the proposed project would include transitional buffers to form a transition between the urban area and agricultural lands, which would prevent noise from posing a health concern to residents.
	NS-2	Minimize risks of property damage and personal injury posed by geologic and seismic risks.	Consistent. No active faults are mapped within the City of Fresno, and There are no Alquist-Priolo

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
			Earthquake Fault Zones in the City. Refer to Section 3.7, Geology and Soils, for further discussion.
	NS-3	Minimize the risks to property, life, and the environment due to flooding and stormwater runoff hazards.	Consistent. This Recirculated Draft PEIR requires construction stormwater quality control measures to prevent flooding due to stormwater runoff. Refer to Section 3.10, Hydrology and Water Quality, for further discussion.
	NS-4	Minimize the risk of loss of life, injury, serious illness, and damage to property resulting from the use, transport, treatment, and disposal of hazardous materials and hazardous wastes.	Consistent. Policy RC-1.5 would include programs that promote appropriate recycling and disposal of hazardous waste. Policy RC-5.2 would prevent contamination of the groundwater table and surface water resources.
Healthy Communities	HC-1	Work with neighborhood associations of local residents, businesses, and institutions on neighborhood and community health initiatives.	Consistent. The proposed project integrates agricultural land uses within the urban area to strengthen community connections to agriculture and provide a range of social, economic, and health benefits. The proposed project would provide a high-quality, accessible open space system to promote health benefits.
	HC-2	Create complete, well-structured, and healthy neighborhoods and transportation systems.	Consistent. Policy UF-2.1 will provide for mixed-use Regional, Community, and Neighborhood Town Centers that form a network of complementary employment, commercial, cultural, and civic opportunities linked by multimodal transportation systems.
	HC-3	Create healthy, safe, and affordable housing.	Consistent. Policy UF-1.4 would require housing choices affordable to a range of Fresno residents by meeting the housing policies of the Housing Choice and Affordability Element. Policy HC-2.1 would include funding assistance, partnership support, and other actions as necessary to support the construction of new affordable housing within the SEDA to meet RHNA-based targets as specified in

Element	Goal/Objective/Policy		Consistency Determination
	Objective No.	Text	
			the City of Fresno General Plan Housing Element. The Housing Element details a comprehensive set of programs to provide an adequate supply of affordable housing.
	HC-5	Promote access to healthy and affordable food.	Consistent. The Community Farming and Agriculture Element seeks to pair opportunities with benefits to the broader community—namely, access to local foods and a tangible relationship with their production. Policy CF-1.4 would establish an agricultural farm belt along the eastern edge of the SEDA. Farm belts provide opportunities to link agricultural land preservation and increased urban efficiency with local food production in ways that positively support local economies, farms, and farmers.
Source: City of Fresno, 2022.			

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

3.11.6 - Cumulative Impacts

Level of Cumulative Significance Before Mitigation

The geographic scope of the cumulative impact analysis for Land Use and Planning is the Plan Area and portions of the City of Fresno, City of Clovis, and unincorporated Fresno County adjacent to the Plan Area. This analysis evaluates whether impacts of the Specific Plan, together with impacts of cumulative development, would result in a cumulatively significant impact with respect to lands use and planning. This analysis then considers whether incremental contribution of the impacts associated with implementation of the Specific Plan would be significant. Both conditions must apply for cumulative effects to rise to the level of significance.

As discussed in Impact LU-1, the proposed project would not physically divide an established community. The proposed project would allow for planned development and growth and would increase connectivity and support, strengthen, and connect new communities within the Plan Area.

Additionally, as demonstrated by the consistency of the Specific Plan with the goals and objectives of the General Plan, the continued implementation of the approved General Plan would ensure there is not an existing cumulative impact related to division of established communities. The policies contained in the proposed project would also serve to minimize impacts within the Plan Area and on surrounding areas. Therefore, the proposed project is not expected to contribute to any cumulative division of an established community.

As demonstrated in Impact LU-2, the proposed project is consistent with the General Plan and thus the potential environmental impacts associated with these plans from buildout of the approved General Plan would be considered less than significant. Therefore, the proposed project and continued implementation of the approved General Plan would not result in a cumulatively considerable contribution to potential cumulative impacts. Therefore, there would be a less than significant cumulative impact with regard to land use and planning as a result of implementing the proposed project.

Level of Cumulative Significance Before Mitigation

Less than significant impact.

Cumulative Mitigation Measures

None required.

GENERAL PLAN LAND USE MAP

Southeast Development Area

RESIDENTIAL

- Low Density (1-3.5 D.U./acre)
- Medium Density (5.0-12 D.U./acre)
- Urban Neighborhood (16-30 D.U./acre)

EMPLOYMENT

- Office
- Business Park
- Regional Business Park

MIXED USE

- Corridor/Center Mixed Use
- Regional Mixed Use

OPEN SPACE

- Community Park
- Open Space
- Ponding Basin

PUBLIC FACILITIES

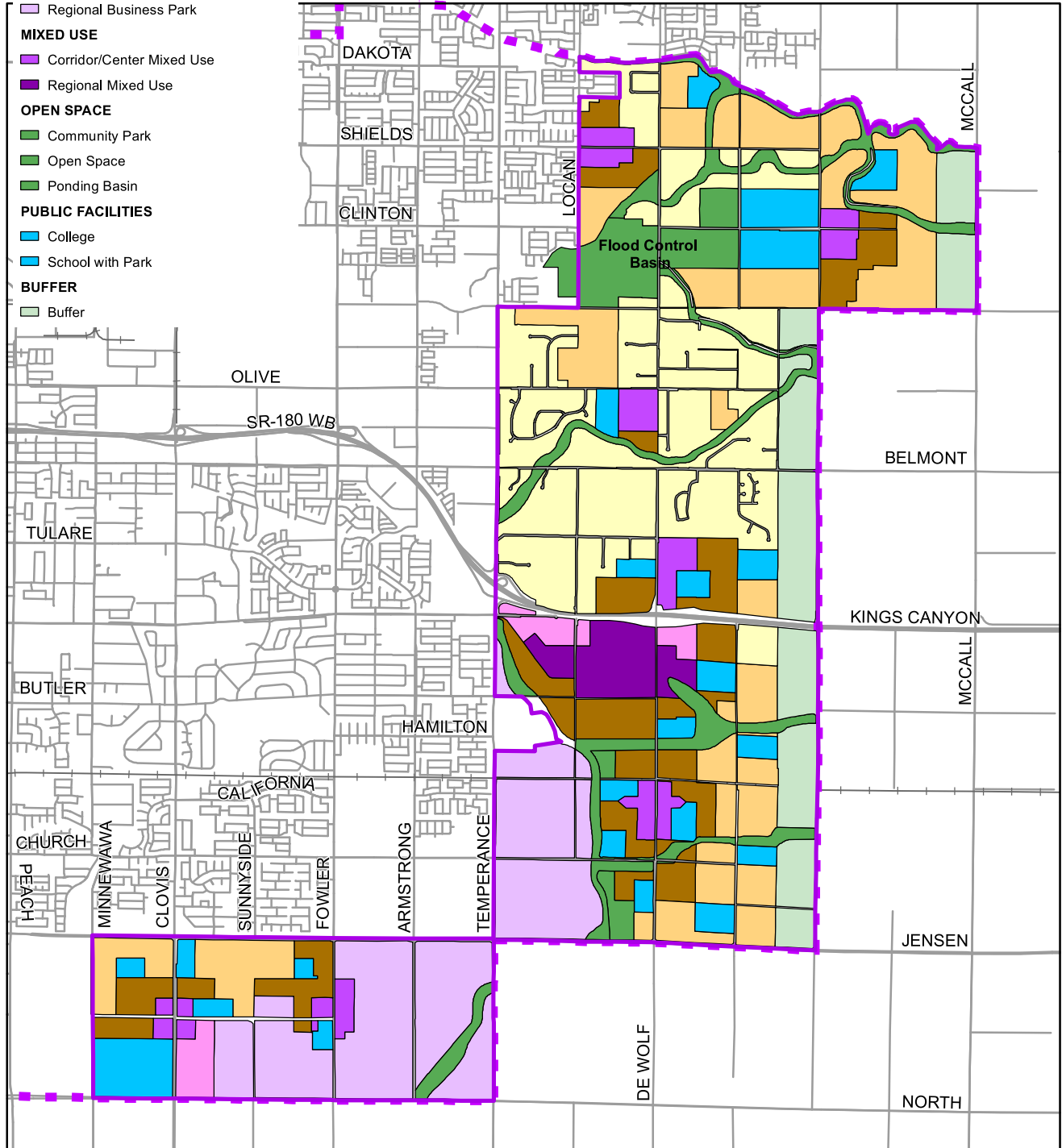
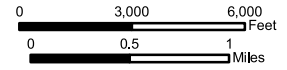
- College
- School with Park

BUFFER

- Buffer

- Southeast Development Area
- Fresno Sphere of Influence
- Major & Local Roads

Source: City of Fresno, SEDA Illustrative Plan derived from community and stakeholder meetings.



Source: City of Fresno

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Exhibit 3.11-1 Existing General Plan Land Use Map

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3.12 - Mineral Resources

3.12.1 - Introduction

This section describes the existing conditions related to mineral resources in the region and project area and summarizes the relevant regulatory framework. This section also evaluates potential impacts related to mineral resources that could result from the proposed project. Information in this section is based, in part, on reports and maps from the California Department of Conservation and the Fresno General Plan (General Plan).

As further discussed in Chapter 1, Introduction, three comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to mineral resources:

- Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the Planning Area.
- Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impact.
- Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.12.2 - Environmental Setting

City of Fresno

Mineral resources, such as aggregate material, are necessary to support urban development, as all public and private projects utilize this material for roadway paving, structural elements, and hardscape, including sidewalks, curbing, and gutters. The principal area for mineral resources in the City of Fresno (City) is located along the San Joaquin River Corridor. Pursuant to the California Surface Mining Reclamation Act (SMARA) of 1975, the California Division of Mines and Geology (CDMG) classifies lands based on the availability of mineral resources. Lands along the San Joaquin River Corridor are classified as Mineral Resources Zones (MRZs) MRZ-1, MRZ-2, and MRZ-3, which are further defined in Section 3.12.3, Regulatory Framework. Areas classified as MRZ-2 indicate that mineral deposits are present or likely present.¹ Furthermore, the entire City is located in the Fresno Production-Consumption (P-C) Region.² Mineral resources along the San Joaquin River Corridor are removed via surface mining operations. Because of the zoning and General Plan designations in these areas, current mining operations in the City are considered legal non-conforming uses, and it is anticipated that these uses will continue until the resources are substantially removed and it is no

¹ California Department of Conservation. 2015. CGS Warehouse: Mineral Land Classification. Website: <https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc>. Accessed June 2, 2022.

² City of Clovis. 2014. General Plan and Development Code Update Draft Program EIR, Figure 5.11-2, Mineral Resources Zones Detail. Accessed June 2, 2022.

longer economically feasible to mine the areas. The City's Mining Overlay District designates that these areas require City approval of a conditional use permit for mining activities.³

3.12.3 - Regulatory Framework

Federal and State

California Surface Mining and Reclamation Act of 1975

The SMARA of 1975 mandates that a "classification/designation" analysis be done to provide information on the availability of mineral resource for construction and growth. The objective is to ensure that raw material will be available when needed—that this raw material will not become inaccessible for mining as the result of inappropriate land use decisions involving mineral resource areas. Areas are classified on the basis of geologic factors without regard to existing land use and land ownership. The areas are categorized into four MRZs:

- **MRZ-1:** An area where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2:** An area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- **MRZ-3:** An area containing mineral deposits, the significance of which cannot be evaluated.
- **MRZ-4:** An area where available information is inadequate for assignment to any other MRZ zone.

Of the four categories, lands classified as MRZ-2 are of the greatest importance. Such areas are underlain by known mineral resources are located or where geologic data indicate that significant measured or indicated resources are present. MRZ-2 areas are designated by the State of California Mining and Geology Board as being regionally significant.

Local

City of Fresno Surface Mining and Reclamation Ordinance

The City's Surface Mining and Reclamation Ordinance (Section 12-5.5 of the Municipal Code) is intended to protect and allow recovery of mineral deposits in the Planning Area. Protection and recovery of mineral deposits is prioritized in order to promote the continued economic well-being of the City. However, since mining and mineral processing activities can have substantial adverse environmental impacts, the Surface Mining and Reclamation Ordinance allows the City to mitigate environmental impacts, if necessary, because discretionary projects are evaluated for project-specific impacts related to mineral resources at the time they are proposed. In general, the purpose of the Surface Mining and Reclamation Ordinance is to maximize recovery of mineral resources while also minimizing threats to the public health and safety, potential environmental damage, and nuisance effects of mining and mineral processing activities.

³ City of Fresno. 1999. Zoning Ordinance Section 858: Regulations for Surface Mining and Reclamation in all Districts, P. 11-146. Website: <https://www.fresnocountyca.gov/files/sharedassets/county/v/1/public-works-and-planning/zoning-ordinance/858-regulations-for-the-development-of-material-extraction-sites-in-all-districts.pdf>. Accessed December 4, 2024.

City of Fresno Citywide Development Code

The City of Fresno Citywide Development Code established the Mining (M) Overlay District to allow ongoing mineral extraction in the San Joaquin River bottom in conjunction with open space uses.⁴

The California Department of Conservation CDMG periodically maps high-quality concrete aggregate deposits and compiles statistics on the amount of aggregate minerals available, and consumed, within designated Production-Consumption (P-C) Regions of the State. The CDMG uses an “MRZ-2” designation for regionally significant deposits of high-grade sand and gravel aggregate (i.e., material suitable for making Portland Cement Concrete). Potential, but presently unproven, mineral resource areas are mapped as MRZ-3. Most of the area outside of the San Joaquin and Kings River Resource Areas has an MRZ-3 designation and may contain economically recoverable mineral resources. However, those resources may not be of the high quality needed to formulate concrete.

City of Fresno General Plan

The General Plan contains the following objectives and policies related to mineral resources within the City:

Resource Conservation and Resilience Element

Objective RC-10 Conserve aggregate mineral resources within the Planning Area, as identified by the Division of Mines and Geology, and allow for responsible extraction to meet Fresno’s needs.

Policy RC-10-a Meet Future Needs. Adopt land use and resource protection regulations that support mining of the high-quality, close-to-market aggregate resources to meet the needs of the Fresno Production-Consumption Region.

Policy RC-10-b Zoning in San Joaquin River bottom. Maintain zoning consistent with on-going mineral extraction in the San Joaquin River bottom that also allows multiple open space uses in conformance with State law and the City’s Surface Mining Ordinance.

Policy RC-10-c Processing-Mining Link. Accommodate only those mineral processing activities in the San Joaquin River bottom that are associated and co-located with mining operations when such industrial activities will sunset with the mining operation and do not stimulate unplanned growth or conversion of multi-use open space to urban uses.

Policy RC-10-d Manage MRZ-2 Areas. Prohibit land uses and development projects that preclude mineral extraction in potential high-quality mineral resource areas designated MRZ-2 by the California Department of Conservation Division of Mines and Geology.

⁴ City of Fresno. 2023. Citywide Development Code 15-107 Districts Established. Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH15CIDECOINRE_PTIGEPR_ART1INPR_S15-107DIES. Accessed March 22, 2023.

- Policy RC-10-e Existing Permits.** Honor surface mining permits approved by Fresno County upon annexation, provided that the mining operation is in compliance with the terms of its current permit(s) and State law. Require new permit applications in the event of noncompliance, permit expiration, or permit revocation, and ensure compliance with law or regulations.
- Policy RC-10-f Cooperate on Uniform Criteria.** Work with Fresno County, Madera County, and the City of Clovis to develop uniform criteria applicable to existing, new, and altered mineral extraction sites in the San Joaquin River bottom.

Fresno Southeast Development Area Specific Plan

The Fresno Southeast Development Area (SEDA) Specific Plan does not contain policies directly related to mineral resources.

3.12.4 - Methodology

Impacts were assessed by evaluating the proposed project's potential for impacting mineral resources within the Plan Area based, in part, on the General Plan and MRZs classified by the SMARA.

3.12.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist as thresholds to determine whether impacts to mineral resources are significant environmental effects.

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts to resources are significant. These questions reflect the input of planning and environmental professionals at the California Governor's Office of Planning and Research (OPR) and the California Natural Resources Agency, based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. Accordingly, the City has derived its significance criteria, based in part on the questions posed in Appendix G. These significance criteria are as follows:

The proposed project would be considered significant if the project would:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.
- b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

3.12.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the proposed project and provides mitigation measures where appropriate.

Project Design Features

Impact MIN-1:	The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.
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Impact Analysis

As previously discussed, mineral resources within the City are primarily located along the San Joaquin River Corridor, which is located in the northwestern part of the City. The Plan Area is located in the southeastern part of the City; thus, the San Joaquin River Corridor does not bisect the Plan Area and is not adjacent to the Plan Area. Further, the nearest areas designated MRZ-2 in the Plan Area, which means significant mineral resources are known or very likely, are along the San Joaquin River approximately 9 miles northwest of the Plan Area boundaries and the Kings River approximately 5 miles east of the Plan Area boundaries. Therefore, no mining operations occur in the Plan Area, and thus, future development under the Specific Plan would not result in a loss of mineral resources. Moreover, the Specific Plan does not contain any objectives, policies, or programs related to mineral resources and does not identify any mineral resources. Therefore, the proposed project would not result in the loss of a locally important mineral resource recovery site delineated by an applicable land use plan or the loss of availability of a known mineral resource of Statewide, regional, or local importance. No impact to mineral resources would occur.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Impact MIN-2:	The proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.
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Impact Analysis

As previously discussed, the Plan Area is identified by the California Department of Conservation as the Fresno Production-Consumption Region.⁵ However, neither the State nor the City identifies the Plan Area as containing known regional mineral resource reserves, according to the California Department of Conservation's MRZ classification. Therefore, the proposed project would not result in the loss of availability of a mineral resource recovery site. Thus, future development under the Specific Plan would not result in a loss of mineral resources. Therefore, project implementation would not result in impacts to known mineral resources or locally important mineral resources.

Level of Significance Before Mitigation

No impact.

⁵ California Department of Conservation. 2015. CGS Warehouse: Mineral Land Classification. Website: <https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc>. Accessed June 2, 2022.

Mitigation Measures

None required.

3.12.7 - Cumulative Impacts

The geographic scope for the analysis of cumulative impacts related to mineral resources includes the Plan Area, the rest of the City of Fresno, adjacent portions of the City of Clovis, and adjacent portions of unincorporated Fresno County. This analysis evaluates whether the impacts of the Specific Plan, together with the impacts of cumulative development, could result in a cumulatively significant impact with respect to mineral resources. This analysis then considers whether incremental contribution of impacts associated with the implementation of the Specific Plan would be significant. Both conditions must apply for a proposed project's cumulative effects to rise to the level of significance.

Cumulative development is likely to continue occurring in the surrounding planning areas and the adjacent City of Clovis. The remaining unincorporated lands adjacent to the Planning Area are subject to the land use plans, policies, and regulations of Fresno County. As such, development within adjacent planning areas and unincorporated Fresno County is not likely to create significant loss of availability of a known mineral resource or loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. For these reasons cumulative impacts with respect to land use would be less than significant.

The proposed project's incremental contribution to cumulative land use impacts would also not be significant since no mining operations occur in the Plan Area, and thus, future development under the Specific Plan would not result in a loss of mineral resources, and the Plan Area does not contain known regional mineral resource reserves. Accordingly, the Specific Plan's contribution to cumulative impacts would be less than significant with regard to mineral resources.

Level of Cumulative Significance Before Mitigation

Less than significant impact.

Cumulative Mitigation Measures

None required.

3.13 - Noise

3.13.1 - Introduction

This section describes the existing noise setting and potential effects from 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 (FCS). The noise modeling output is included in this Recirculated Draft Program Environmental Impact Report (Recirculated Draft PEIR) as Appendix I. No public comments were received during the Draft PEIR scoping period related to noise.

3.13.2 - 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 3 dB or less 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 are considered potentially significant.

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 exchangeable. 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 3.13-1 briefly defines these measurement descriptors and other sound terminology used in this section.

Table 3.13-1: 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). 2022.	

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, 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 the use of proper 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 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 stationary noise. Construction-period noise levels are higher than background ambient noise levels but eventually 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 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 3.13-2 shows typical noise levels of construction equipment as measured at a distance of 50 feet from the operating equipment.

Table 3.13-2: Typical Construction Equipment Maximum Noise Levels

Type of Equipment	Impact Device? (Yes/No)	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Impact Pile Driver	Yes	95
Auger Drill Rig	No	85
Vibratory Pile Driver	No	95
Jackhammers	Yes	85
Pneumatic Tools	No	85
Pumps	No	77
Scrapers	No	85
Cranes	No	85
Portable Generators	No	82
Rollers	No	85
Bulldozers	No	85
Tractors	No	84

Type of Equipment	Impact Device? (Yes/No)	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Front-End Loaders	No	80
Backhoe	No	80
Excavators	No	85
Graders	No	85
Air Compressors	No	80
Dump Truck	No	84
Concrete Mixer Truck	No	85
Pickup Truck	No	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, which 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 cause 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 microinch per second. To distinguish vibration levels from noise levels, the unit is written as “VdB.”

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 microinch 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 3.13-3.¹

Table 3.13-3: 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

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 (small)	0.101	88
Compactor	0.138	90
Clam shovel drop	0.202	94
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 distance 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 Chapter 12 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

The existing land uses in the Plan Area include agricultural, rural residential, institutional and public facilities, and natural features. The dominant daily average noise sources in the Plan Area are traffic on local roadways and seasonal agricultural operations.

Noise-Sensitive Land Uses

Noise-sensitive land uses generally consist of those uses where exposure to noise would result in adverse effects as well as uses for which quiet is an essential element of their intended purpose. Residential dwellings are of primary concern, because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other typical noise-sensitive land uses include hospitals, convalescent facilities, hotels, religious institutions, libraries, and other uses where low noise levels are essential.

The existing noise-sensitive land uses in the Plan Area include residential, church, and school land uses. Potential noise impacts associated with implementation of the Specific Plan to these existing noise-sensitive land uses are analyzed in this section.

Traffic Noise

Traffic noise depends primarily on traffic speed and the proportion truck traffic. Existing traffic noise levels along selected roadway segments in the project vicinity were modeled using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108). Site-specific information is entered, 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 from the traffic analysis prepared by TJKM for the proposed project.

² Federal Transit Administration (FTA). 2006. Transit Noise and Vibration Impact Assessment. May.

The model inputs and outputs, including the 60 dBA, 65 dBA, and 70 dBA CNEL traffic noise contour distances, are provided in Appendix I. A summary of the modeling results is shown in Table 3.13-4.

Table 3.13-4: Existing (Year 2019) Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
Clovis Avenue—south of American Avenue	14,400	58	115	244	68.1
De Wolf Avenue—north of McKinley Avenue	2,800	< 50	< 50	82	62.5
De Wolf Avenue—south of McKinley Avenue	1,900	< 50	< 50	63	60.8
De Wolf Avenue—south of Clinton Avenue	2,300	< 50	< 50	72	61.7
De Wolf Avenue—north of Jensen Avenue	1,700	< 50	< 50	59	60.3
De Wolf Avenue—south of Jensen Avenue	1,200	< 50	< 50	< 50	58.8
Jensen Avenue—east of Bethel Avenue	14,000	74	153	326	70.0
Jensen Avenue—east of De Wolf Avenue	9,800	60	121	258	68.5
Jensen Avenue—west of De Wolf Avenue	5,700	< 50	86	180	66.1
Jensen Avenue—east of Temperance Avenue	9,900	61	122	259	68.5
Jensen Avenue—west of Temperance Avenue	10,800	64	129	275	68.9
Locan Avenue—north of Tulare Avenue	170	< 50	< 50	< 50	50.3
Locan Avenue—south of Tulare Avenue	160	< 50	< 50	< 50	50.1
McCall Avenue—north of McKinley Avenue	4,200	< 50	< 50	107	64.3
McCall Avenue—north of Ashlan Avenue	5,200	< 50	58	124	65.2
McCall Avenue—north of Belmont Avenue	5,800	< 50	62	133	65.7
Tulare Avenue—east of Locan Avenue	250	< 50	< 50	< 50	52.0
Tulare Avenue—west of Locan Avenue	600	< 50	< 50	< 50	55.8
North Avenue—west of Temperance Avenue	2,500	< 50	< 50	76	62.0
Notes: ADT = Average Daily Traffic CNEL = Community Noise Equivalent Level dBA = A-weighted decibel * Modeling results do not take into account mitigating features such as topography, vegetative screening, fencing, building design, or structure screening. Rather, they assume a worst-case scenario of having a direct line of site on flat terrain. Source: FirstCarbon Solutions (FCS) 2022.					

3.13.3 - 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. Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that “noise-sensitive” uses are either prohibited from being sited adjacent to a highway, or, alternatively, that developments are planned and constructed in such a manner that minimize potential noise impacts.

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

The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment document (2006). The FTA guidelines include thresholds for construction vibration impacts for various structural categories as shown in Table 3.13-5.

Table 3.13-5: 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. Nonengineered Timber and Masonry Buildings	0.2	94
IV. Buildings Extremely Susceptible to Vibration Damage	0.12	90

Building Category	PPV (in/sec)	Approximate VdB
Notes: PPV = peak particle velocity VdB = velocity in decibels Source: Federal Aviation Administration (FAA). 2006. Transit Noise and Vibration Impact Assessment.		

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.³

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. The guidelines rank noise/land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable. The proposed project is also subject to review under the California Environmental Quality Act (CEQA) Guidelines. Appendix G of the CEQA Guidelines provides impact thresholds for potential noise and vibration impacts. The City of Santa Rosa had developed its own CEQA thresholds, which are listed in the Thresholds of Significance section below.

California Building Standards Code

The State of California has established noise insulation standards for new hotels, motels, apartment houses, and dwellings (other than single-family detached housing). These requirements are provided in the 2022 California Building Standards Code (CBC) (California Code of Regulations [CCR] Title 24).⁴ As provided in the CBC, the noise insulation standards set forth an interior standard of 45 dBA CNEL as measured from within the structure’s interior. When such structures are located within a 65 dBA CNEL (or greater) exterior noise contour associated with a traffic noise along a roadway, an acoustical analysis is required to ensure that interior levels do not exceed the 45 dBA CNEL threshold.

Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

³ California Department of Health Services Office of Noise Control. Land Use Compatibility for Community Noise Environments Matrix. 1976.

⁴ California Building Standards Commission. 2022. California Building Standards Code (CCR Title 24). January 1.

Local

The City of Fresno (City) has established Noise Compatibility Standards for residential and nonresidential land uses in the Noise Element of the City of Fresno General Plan⁵ and in the City of Fresno Municipal Code.⁶

Fresno General Plan

The Fresno General Plan contains goals, objectives, and policies that address noise within the City of Fresno. The following General Plan goals, objectives, and policies are applicable to the proposed project:

Guiding Policies: Noise

NS-1 Objective Protect the citizens of the City from the harmful and annoying effects of exposure to excessive noise.

Policy NS-1-a Desirable and Generally Acceptable Exterior Noise Environment. Establish 65dBA L_{dn} or CNEL as the standard for the desirable maximum average exterior noise levels for defined usable exterior areas of residential and noise-sensitive uses for noise but designate 60 dBA L_{dn} or CNEL (measured at the property line) for noise generated by stationary sources impinging upon residential and noise-sensitive uses. Maintain 65 dBA L_{dn} or CNEL as the maximum average exterior noise levels for non-sensitive commercial land uses and maintain 70 dBA L_{dn} or CNEL as maximum average exterior noise level for industrial land uses, both to be measured at the property line of parcels where noise is generated which may impinge on neighboring properties.

Policy NS-1-b Conditionally Acceptable Exterior Noise Exposure Range. Establish the conditionally acceptable noise exposure level range for residential and other noise-sensitive uses to be 65 dBA L_{dn} or require appropriate noise reducing mitigation measures as determined by a site-specific acoustical analysis to comply with the desirable and conditionally acceptable exterior noise level and the required interior noise level standards set in Table 9-2 [Table 3.13-6].

Policy NS-1-c Generally Unacceptable Exterior Noise Exposure Range. Establish the exterior noise exposure of greater than 65 dBA L_{dn} or CNEL to be generally unacceptable for residential and other noise-sensitive uses for noise generated by sources in Policy NS-1-a, and study alternative less noise-sensitive uses for these areas if otherwise appropriate. Require appropriate noise reducing mitigation measures as determined by a site-specific acoustical analysis to comply with the generally desirable or generally acceptable exterior noise level and the required 45 dBA interior noise level standards set in Table 9-2 [Table 3.13-6] as conditions of permit approval.

⁵ City of Fresno. 2014. Fresno General Plan, Chapter 9 Noise and Safety. December 18.

⁶ City of Fresno. 2023. Fresno Municipal Code. Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH15CIDECOINRE_PTIIIREAPSOALDI_ART25PEST_S15-2506NO. Accessed March 22, 2023.

- Policy NS-1-f** Performance Standards. Implement performance standards for noise reduction for new residential and noise-sensitive uses exposed to exterior community noise levels from transportation sources above 65 dBA L_{dn} or CNEL, as shown on Figure NS-3: Future Noise Contours, or as identified by a project-specific acoustical analysis based on the target acceptable noise levels set in Table 9-2 [Table 3.13-6] and Policies NS-1-a through NS-1-c.
- Policy NS-1-i** Mitigation by New Development. Require an acoustic analysis where new development of industrial, commercial or other noise generating land uses (including transportation facilities such as roadways, railroads, and airports) may result in noise levels that exceed the noise level exposure criteria established by Tables 9-2 and 9-3 [Table 3.13-6 and Table 3.13-7] to determine impacts, and require developers to mitigate these impacts in conformance with Tables 9-2 and 9-3 [Table 3.13-6 and Table 3.13-7] as a condition of permit approval through appropriate means. Noise mitigation measures may include:
- The screening of noise sources such as parking and loading facilities, outdoor activities, and mechanical equipment.
 - Providing increased setbacks for noise sources from adjacent dwellings.
 - Installation of walls and landscaping that serve as noise buffers.
 - Installation of soundproofing materials and double-glazed windows.
 - Regulating operations, such as hours of operation, including deliveries and trash pickup.
 - Alternative acoustical designs that achieve the prescribed noise level reduction may be approved by the City, provided a qualified Acoustical Consultant submits information demonstrating that the alternative designs will achieve and maintain the specific targets for outdoor activity areas and interior spaces. As a last resort, developers may propose to construct noise walls along roadways when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility, with no City funding.
- Policy NS-1-j** Significance Threshold. Establish, as a threshold of significance for the City's environmental review process, that a significant increase in ambient noise levels is assumed if the project would increase noise levels in the immediate vicinity by 3 dBA L_{dn} or CNEL or more above the ambient noise limits established in this General Plan Update.
- Policy NS-1-k** Proposal Review. Review all new public and private development proposals that may potentially be affected by or cause a significant increase in noise levels, per Policy NS-1-i, to determine conformance with the policies of this Noise Element. Require developers to reduce the noise impacts of new development on adjacent properties through appropriate means.
- Policy NS-1-l** Enforcement. Continue to enforce applicable State Noise Insulation Standards and Uniform Building Code noise requirements, as adopted by the City.

- Policy NS-1-m** Transportation-related Noise Impacts Related Noise Impacts. For projects subject to City approval, require that the project sponsor mitigate noise created by new transportation and transportation-related stationary noise sources, including roadway improvement projects, so that resulting noise levels do not exceed the City's adopted standards for noise-sensitive land uses.
- Policy NS-1-n** Best Available Technology. Require new noise source to use best available control technology to minimize noise emissions.
- Policy NS-1-o** Sound Wall Guidelines. Acoustical studies and noise mitigation measures for projects shall specify the heights, materials, and design for sound walls and other noise barriers. Aesthetic considerations shall also be addressed in these studies and mitigation measures such as variable noise barrier heights, a combination of a landscaped berm with wall, and reduced barrier height in combination with increased distance or elevation differences between noise source and noise receptor, with a maximum allowable height of 15 feet. The City will develop guidelines for aesthetic design measures of sound walls, and may commission area wide noise mitigation studies that can serve as templates for acoustical treatment that can be applied to similar situations in the urban area.

Table 3.13-6: Transportation (Non-Aircraft) Noise Source

Noise-sensitive Land Use ¹	Outdoor Activity Areas ² CNEL/L _{dn} dB	Interior Spaces	
		CNEL/L _{dn} dB	CNEL/L _{dn} dB ³
Residential	65	45	—
Transient Lodging	65	45	—
Hospitals, Nursing Homes	65	45	—
Theaters, Auditoriums, Music Halls	—	—	35
Churches, Meeting Halls	65	—	45
Office Buildings	—	—	45
Schools, Libraries, Museums	—	—	45

Notes:
 CNEL = Community Noise Equivalent Level
 dB = decibel
 L_{dn} = day/night average sound level
¹ Where the location of outdoor activity areas is unknown or is not applicable, the exterior noise level standard shall be applied to the property line of the receiving land use.
² As determined for a typical worst-case hour during periods of use.
³ As determined for a typical worst-case hour during periods of use.
 Source: Fresno General Plan, Noise and Safety Element. 2014.

Table 3.13-7: Stationary Noise Sources

Category	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Hourly Equivalent Sound Level (L_{eq}), dB	50	45
Maximum Sound Level (L_{max}), dB	70	65
<p>Notes: dB = decibel L_{dn} = day/night average sound level L_{max} = maximum noise/sound level ¹ The Department of Development and Resource Management Director, on a case-by-case basis, may designate land uses other than those shown in this table to be noise-sensitive and may require appropriate noise mitigation measures. ² As determined at outdoor activity areas. Where the location of outdoor activity areas is unknown or not applicable, the noise exposure standard shall be applied at the property line of the receiving land use. When ambient noise levels exceed or equal the levels in this table, mitigation shall only be required to limit noise to the ambient plus 5 dB. Source: Fresno General Plan Noise and Safety Element. 2014.</p>		

City of Fresno Municipal Code

Chapter 10, Article 1 (Noise Regulations), of the Fresno Municipal Code establishes excessive noise guidelines and exemptions. The following portions of the Municipal Code are applicable to the proposed project:

SEC. 10-102: Definitions

- (b) Ambient Noise. “Ambient noise” is the all-encompassing noise associated with a given environment, being usually a composite of sounds from many sources near and far. For the purpose of this ordinance, ambient noise level is the level obtained when the noise level is averaged over a period of 15 minutes, without inclusion of the offending noise, at the location and time of day at which a comparison with the offending noise is to be made. Where the ambient noise level is less than that designated in this section, however, the noise level specified herein shall be deemed to be the ambient noise level for that location.

District	Time	Sound Level Decibels
Residential	10:00 p.m. to 7:00 a.m.	50
Residential	7:00 p.m. to 10:00 p.m.	55
Residential	7:00 a.m. to 7:00 p.m.	60
Commercial	10:00 p.m. to 7:00 a.m.	60
Commercial	7:00 a.m. to 10:00 p.m.	65
Industrial	anytime	70

SEC. 10-105 Excessive Noise Prohibited

No person shall make, cause, or suffer or permit to be made or caused upon any premises or upon any public street, alley, or place within the City, any sound or noise which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing or working in the area, unless such noise or sound is specifically authorized by or in accordance with this article. The provisions of this section shall apply to, but shall not be limited to, the control, use, and operation of the following noise sources:

- (a) Radios, musical instruments, phonographs, television sets, or other machines or devices used for the amplification, production, or reproduction of sound or the human voice.
- (b) Animals or fowl creating, generating, or emitting any cry or behavioral sound.
- (c) Machinery or equipment, such as fans, pumps, air conditioning units, engines, turbines, compressors, generators, motors or similar devices, equipment, or apparatus.
- (d) Construction equipment or work, including the operation, use or employment of pile drivers, hammers, saws, drills, derricks, hoists, or similar construction equipment or tools.

SEC. 10-109 Exceptions

The provisions of this article shall not apply to:

- (a) Construction, repair or remodeling work accomplished pursuant to a building, electrical, plumbing, mechanical, or other construction permit issued by the City or other governmental agency, or to site preparation and grading, provided such work takes place between the hours of 7:00 a.m. and 10:00 p.m. on any day except Sunday.
- (b) Emergency work.
- (c) Any act or acts which are prohibited by any law of the State of California or the United States.

Chapter 15, Article 25 (Performance Standards), of the Fresno Municipal Code establishes noise and vibration performance standards. The following portions of the Municipal Code are applicable to the proposed project:

SEC. 15-2506 Noise

The provisions of this section apply to noise sources resulting from and relating to new development or the expansion of a use or activity. Section 15-2506 establishes noise exposure thresholds from transportation-related noise sources for new noise-sensitive land use development. The maximum allowable exterior noise level for

noise-sensitive land uses is 65 dBA L_{dn} /CNEL, and the maximum allowable interior noise level for noise-sensitive land uses is 45 dBA L_{eq} .

Section 15-2506 also establishes land use compatibility standards for new development proposed near transportation noise sources. For example, environments with traffic noise levels ranging up to 65 dBA L_{dn} /CNEL are considered satisfactory for new residential or similar noise-sensitive land use development and may be permitted without requiring noise attenuation. Environments with traffic noise levels between 65 dBA and 70 dBA CNEL would require analysis and integration of noise reduction measures in the project design. Environments with traffic noise levels between 70 dBA and 75 dBA CNEL would require a site-specific acoustical study and implementation of noise attenuation measures. Environments with traffic noise levels above 75 dBA CNEL are not acceptable for new residential or similar noise-sensitive development.

Section 15-2506 further establishes noise performance standards for stationary noise sources. The daytime noise performance standards are 50 dBA L_{eq} (hourly) and 70 dBA L_{max} ; and the nighttime standards are 45 dBA L_{eq} (hourly) and 60 dBA L_{max} .

SEC. 15-2507 Vibration

No vibration shall be produced that is transmitted through the ground and is discernible without the aid of instruments by a reasonable person at the lot lines of the site. Vibrations from temporary construction, demolition, and vehicles that enter and leave the subject parcel (e.g., construction equipment, trains, trucks, etc.) are exempt from this standard.

Fresno Southeast Development Area Specific Plan

The Fresno Southeast Development Area (SEDA) Specific Plan does not contain policies directly related to noise or groundborne vibration.

3.13.4 - Methodology

Construction Noise Analysis Methodology

A worst-case scenario was analyzed assuming each piece of modeled equipment would operate simultaneously at the nearest reasonable locations to the closest noise-sensitive receptor for the loudest phase of construction. Noise emission levels recommended by FHWA's Highway Construction Noise Handbook were used to ascertain the noise generated by specific types of construction equipment. The construction noise impact was evaluated in terms of maximum levels (L_{max}). Analysis requirements were based on the sensitivity of nearby receptors and the Noise Ordinance specifications.

Traffic Noise Modeling Methodology

The FHWA highway traffic noise prediction model (FHWA-RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the project site. Traffic data used in the model was

obtained from the Traffic Impact Analysis (TIA) prepared for the project (Appendix H).⁷ The resultant noise levels were weighed and summed over a 24-hour period in order to determine the CNEL values. The FHWA-RD-77-108 Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level. Adjustments are then made 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 and 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 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.” 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 model analyzed the noise impacts from the nearby roadways onto the project vicinity, which consists of the area that has the potential of being impacted from the on-site noise sources as well as the project-generated traffic on the nearby roadways. The roadways were analyzed based on a single-lane-equivalent noise source combining both directions of travel. A single-lane-equivalent noise source exists 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.

Stationary Noise Source Analysis Methodology

The proposed project would generate noise from future development that could contain new exterior mechanical equipment sources, such as rooftop ventilation systems on proposed industrial uses, and potential new parking lot activities. To provide a conservative analysis, the highest end of the range of reference noise levels for these stationary noise sources was used to calculate the reasonable worst-case hourly average noise levels from each noise source. These noise levels were then compared to the City’s applicable noise performance threshold to determine whether these noise sources would result in a substantial increase in excess of this standard.

Vibration Impact Analysis Methodology

The City of Fresno does not have adopted criteria for construction or operational groundborne vibration impacts. Therefore, the FTA’s vibration impact criteria and modeling and analysis

⁷ Environmental Planning Development Solutions, Inc, 2022. Rio Vista Specific Plan Traffic Impact Analysis. January 26.

methodology were utilized to evaluate potential vibration impacts. The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment document⁸ and are summarized in Table 3.13-5 in the regulatory discussion above.

3.13.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in the CEQA Guidelines Appendix G Environmental Checklist as thresholds to determine whether noise impacts are significant environmental effects.

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts to resources are significant. These questions reflect the input of planning and environmental professionals at the Governor's Office of Planning and Research and the California Natural Resources Agency based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. Accordingly, the City has derived its significance criteria, based in part on the questions posed in Appendix G. These significance criteria are as follows:

The project would have a significant impact on the environment if it would:

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- b) Generation of excessive groundborne vibration or groundborne noise levels.
- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

3.13.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Substantial Noise Increase in Excess of Standards

Impact NOI-1:	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.
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⁸ Federal Transit Administration (FTA). 2006. Transit Noise and Vibration Impact Assessment. May.

Impact Analysis

Temporary Construction Noise Impacts

A significant impact would occur if project-related, noise producing construction activities result in a substantial temporary increase in ambient noise levels in excess of the established standards. The City's Noise Ordinance identifies that construction, repair, or remodeling work accomplished pursuant to a building, electrical, plumbing, mechanical, or other construction permit issued by the City or other governmental agency, or to site preparation and grading, are exempt from the noise performance standards of the Noise Ordinance provided such work takes place between the hours of 7:00 a.m. and 10:00 p.m. on any day except Sunday.

Development that could occur from implementation of the Specific Plan is expected to result in construction activities within the planning area. Noise impacts from construction activities would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

For future development projects, two types of short-term noise impacts would occur during site preparation and project construction. The first type would 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 a development site would incrementally increase noise levels on access roads leading to the site. Typically, a doubling of the ADT hourly volumes on a roadway segment is required in order to result in an increase of 3 dBA in traffic noise levels, which, as discussed in the characteristics of noise discussion above, is the lowest change that can be perceptible to the human ear in outdoor environments. Individual development project's construction trips would not be expected to double the hourly or daily traffic volumes along roadway segments in the vicinity of a development site. For this reason, short-term intermittent noise from construction trips would not be expected to result in a perceptible increase in hourly or daily average traffic noise levels. Therefore, short-term construction-related noise impacts associated with the transportation of workers and equipment to a development site would be less than significant.

For future development projects, the second type of short-term noise impact is related to noise generated during site preparation, grading, and construction activities. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases 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 3.13-2 shows typical noise levels of construction equipment as measured at a distance of 25 feet from the operating equipment.

The site preparation phase, which includes excavation and grading activities, generates 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.

Development projects that could occur with implementation of the of the Specific Plan would be expected to require the use of some of the loudest pieces of construction equipment listed in Table 3.13-2. For example, the maximum noise level generated by each pile driver is assumed to be 112 dBA L_{max} at 25 feet from this equipment. Bulldozers would generate 87 dBA L_{max} at 25 feet. The maximum noise level generated by graders is approximately 82 dBA L_{max} at 25 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 phase of construction would be 90 dBA L_{max} at a distance of 50 feet from the acoustical center of a construction area. This would result in a reasonable worst-case hourly average of 86 dBA L_{eq} . The acoustical 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 multiple sources operating simultaneously would represent the worst-case noise levels.

There are no site-specific development plans; however, project development in the Plan Area could result in the potential for relatively high single event construction noise causing resulting in temporary substantial increase in ambient noise levels in the vicinity of the project in excess of established standards, potentially resulting in an intermittent noise nuisance that could result in annoyance or sleep disturbances at nearby sensitive receptors. Therefore, mitigation is required to reduce this potential impact. With implementation of Mitigation Measure (MM) NOI-1a and MM NOI-1b, construction noise impacts due to construction activities would be reduced to the extent feasible. However, given that details of individual development projects in the vicinity of the Plan Area are currently unknown, it is not possible to quantify the construction noise impacts at specific off-site or on-site sensitive receptors. Because these construction activities may occur near noise-sensitive receptors and because noise disturbances may occur for prolonged periods of time, construction noise impacts would remain significant and unavoidable.

Operational Mobile Source Noise Impacts

A significant impact would occur if project-generated traffic would result in a substantial increase in ambient noise levels compared with those that would exist without the proposed project. The City does not define “substantial increase”; therefore, for purpose of this analysis, a substantial increase is based on the following criteria. A characteristic of noise is that audible increases in noise levels generally refer to a change of 3 dBA or more as this level has been found to be barely perceptible to the human ear in outdoor environments. A change of 5 dBA is considered the minimum readily perceptible change to the human ear in outdoor environments. Therefore, for purposes of this analysis, a significant impact would occur if the proposed project would cause the CNEL to increase by any of the following:

- 5 dBA or more even if the CNEL would remain below normally acceptable levels for a receiving land use.

- 3 dBA or more, thereby causing the CNEL to exceed normally acceptable levels for a receiving land use.

As identified in Table 3.13-6, noise environments with transportation noise levels of up to 65 dBA CNEL are considered normally acceptable for new residential, transient lodging, hospitals, nursing homes, churches, and meeting halls land use development.

The FHWA highway traffic noise prediction model (FHWA-RD-77-108) was used to evaluate existing and future project-related traffic noise conditions along modeled roadway segments in the vicinity of the project site. Traffic modeling was performed using the data provided by TJKM in the traffic analysis prepared for the proposed project. The resultant noise levels were weighed and summed over a 24-hour period to determine the CNEL values. The traffic noise modeling input and output files—including the 60 dBA, 65 dBA, and 70 dBA CNEL noise contour distances—are included in Appendix I. Table 3.13-8 shows a summary of the traffic noise levels for year 2035 forecast traffic conditions without and with the proposed project, as measured at 50 feet from the centerline of the outermost travel lane.

Table 3.13-8: Year 2035 Forecast Traffic Noise Levels Without and With the Proposed Project

Roadway Segment	Without Project		With Project		Increase Over Without Project Conditions (dBA)
	ADT	CNEL (dBA)	ADT	CNEL (dBA)	
Clovis Avenue—south of American Avenue	15,400	68.4	18,300	69.2	0.8
De Wolf Avenue—north of McKinley Avenue	4,300	64.4	5,600	65.5	1.1
De Wolf Avenue—south of McKinley Avenue	1,900	60.8	3,700	63.7	2.9
De Wolf Avenue—south of Clinton Avenue	3,500	63.5	4,700	64.8	1.3
De Wolf Avenue—north of Jensen Avenue	1,700	60.3	3,600	63.6	3.3
De Wolf Avenue—south of Jensen Avenue	1,300	59.2	2,200	61.5	2.3
Jensen Avenue—east of Bethel Avenue	15,100	70.3	18,900	71.3	1.0
Jensen Avenue—east of De Wolf Avenue	11,600	69.2	16,800	70.8	1.6
Jensen Avenue—west of De Wolf Avenue	6,700	66.8	10,000	68.5	1.7
Jensen Avenue—east of Temperance Avenue	13,900	70.0	20,100	71.6	1.6
Jensen Avenue—west of Temperance Avenue	12,700	69.6	19,800	71.5	1.9
Locan Avenue—north of Tulare Avenue	220	51.5	400	54.1	2.6
Locan Avenue—south of Tulare Avenue	200	51.0	320	53.1	2.1
McCall Avenue—north of McKinley Avenue	4,200	64.3	6,400	66.1	1.8
McCall Avenue—north of Ashlan Avenue	5,200	65.2	5,700	65.6	0.4
McCall Avenue—north of Belmont Avenue	5,800	65.7	10,000	68.0	2.3

Roadway Segment	Without Project		With Project		Increase Over Without Project Conditions (dBA)
	ADT	CNEL (dBA)	ADT	CNEL (dBA)	
Tulare Avenue—east of Locan Avenue	370	53.7	590	55.7	2.0
Tulare Avenue—west of Locan Avenue	870	57.4	1,400	59.5	2.1
North Avenue—west of Temperance Avenue	2,500	62.0	2,500	62.0	0.0
<p>Note: ADT = Average Daily Traffic CNEL = Community Noise Equivalent Level dBA = A-weighted decibel Bold values indicate roadway segments with traffic noise levels in excess of the City’s acceptable noise exposure level for new noise-sensitive land use development. Source: FirstCarbon Solutions (FCS) 2022.</p>					

As shown in Table 3.13-8, the highest traffic noise level increase with implementation of the proposed project would occur along De Wolf Avenue, on the segment north of Jensen Avenue. The modeling results show that the plus project traffic noise levels would result in an increase of 3.3 dBA over conditions that would exist without the project, resulting in traffic noise levels of 63.6 dBA CNEL as measured at 50 feet from the centerline of the outermost travel lane along this roadway segment. These noise levels are below the City’s normally acceptable land use compatibility standard of 65 dB CNEL for noise-sensitive land use development. The resulting increase is less than the 5 dBA increase that would be considered a substantial increase. 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.

However, several of the modeled roadway segments, shown in bold in Table 3.13-8, have traffic noise levels that exceed the City’s land use compatibility standards for new development proposed near transportation noise sources. The roadway segment of Jensen Avenue east of Temperance Avenue would experience the highest forecasted traffic noise levels, with noise levels of 71.6 dBA CNEL as measured at 50 feet from the centerline of the outermost travel lane under With Project conditions. This would be considered a significant impact and site-specific analysis would be required for future noise-sensitive land use development in these areas. These traffic noise impacts can be mitigated either by using setbacks, soundwalls, acoustic-rated windows, or by siting non-sensitive buildings as shielding. For example, at a distance of 160 feet from the centerline of Jensen Avenue, future traffic noise levels would attenuate to below 65 dBA CNEL; in addition, properly sited structural (building or sound wall) shielding can provide 15 dBA or greater additional noise reduction.

Therefore, implementation of MM NOI-1c, which requires preparation of a traffic noise reduction plan to identify appropriate design measures, where required, would ensure traffic noise impacts on future noise-sensitive land use development projects would be reduced to less than significant.

Operational Stationary Source Noise Impacts

A significant impact would occur if operational noise levels generated by stationary noise sources associated with development projects within the Plan Area would exceed the noise performance standards of Section 15-2506 of the Municipal Code.

Development projects that could occur with implementation of the Specific Plan would include new stationary noise sources. These stationary noise sources could involve a wide spectrum of uses and activities, including various industrial uses, commercial operations, agricultural production, school playgrounds, high school football games and marching bands, HVAC units, generators, lawn maintenance equipment, and swimming pool pumps. These would be potential point sources of noise that could affect noise-sensitive receptors in the Plan Area.

Typical maximum noise levels from truck loading and unloading activity are 65 dBA to 75 dBA L_{max} as measured at 50 feet. These maximum noise levels include noise from associated truck loading/unloading activities, including maneuvering, trailer loading and unloading, backup alarms or beepers, and docking noise. Parking activities include vehicles cruising at slow speeds, doors shutting, or cars starting, would generate noise levels of approximately 60 dBA to 70 dBA L_{max} at 50 feet. Current market available residential mechanical ventilation equipment has rated operational noise levels up to 70 dBA L_{eq} at a distance of 3 feet. Current market available commercial grade mechanical ventilation equipment is rated as having operational noise levels up to 80 dBA L_{eq} at 3 feet from the operating equipment.

These stationary source operational noise levels could exceed the City's noise performance thresholds if they were to occur in areas adjacent to sensitive receptor land uses. Therefore, mitigation would be required to reduce this potential impact. Operational activity noise levels can be mitigated either at the source or at the receiving land use using setbacks, soundwalls, acoustic-rated windows, or by siting loading/parking areas on sides of buildings opposite sensitive receptors (using buildings as shielding). For example, at a distance of 300 feet, unobstructed truck loading activity noise levels would attenuate to below 60 dBA L_{max} , while properly sited structural shielding (building or sound wall) can provide 15 dBA or greater additional noise reduction.

Therefore, with implementation of MM NOI-1d, which requires preparation of a stationary source noise reduction plan to identify appropriate design measures, where required, would ensure stationary source operational noise impacts generated by future development projects would be reduced to less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM NOI-1a Construction Activity Hours Restriction

Construction activity which requires a permit issued by the City of Fresno shall be limited to the hours between 7:00 a.m. and 10:00 p.m. on weekdays and Saturdays.

Any construction activity outside of these hours must comply with the City's noise performance standards in Section 15.2506 of the Municipal Code.

MM NOI-1b Construction Noise Mitigation Plan

Prior to the issuance of demolition, grading, and/or construction permits, applicants for individual development projects within 500 feet of noise-sensitive receptors (e.g., residences, hospitals, schools) shall conduct a project-level construction noise analysis to evaluate potential impacts on sensitive receptors. The analysis shall be conducted once the final construction equipment list that will be used for demolition and grading activities is determined. The project-level noise analysis shall be prepared, reviewed, and approved by the City of Fresno Planning Director. If the analysis determines that demolition and construction activities would result in an impact to identified noise-sensitive receptors, then specific measures to attenuate the noise impact shall be outlined in the analysis and reviewed and approved by the City of Fresno Planning Director. Specific measures may include, but are not limited to, the following Best Management Practices (BMPs):

- Post a construction site notice near the construction site access point or in an area that is clearly visible to the public. The notice shall include the following: job site address; permit number, name, and phone number of the contractor and owner; dates and duration of construction activities; construction hours allowed; and the City of Fresno Planning Director and construction contractor phone numbers where noise complaints can be reported and logged.
- Consider the installation of temporary sound barriers for construction activities immediately adjacent to occupied noise-sensitive structures.
- Restrict haul routes and construction-related traffic to the least noise-sensitive times of the day.
- Reduce non-essential idling of construction equipment to no more than 5 minutes.
- Ensure that all construction equipment is monitored and properly maintained in accordance with the manufacturer's recommendations to minimize noise.
- Fit all construction equipment with properly-operating mufflers, air intake silencers, and engine shrouds, no less effective than as originally equipped by the manufacturer, to minimize noise emissions.
- If construction equipment is equipped with backup alarm shut offs, switch off backup alarms and replace with human spotters, as feasible.
- Stationary equipment (such as generators and air compressors) and equipment maintenance and staging areas shall be located as far from existing noise-sensitive land uses, as feasible.
- To the extent feasible, use acoustic enclosures, shields, or shrouds for stationary equipment such as compressors and pumps.
- Shut off generators when generators are not needed.
- Coordinate deliveries to reduce the potential of trucks waiting to unload and idling for long periods of time.

- Grade surface irregularities on construction sites to prevent potholes from causing vehicular noise.
- Minimize the use of impact devices such as jackhammers, pavement breakers, and hoe rams. Where possible, use concrete crushers or pavement saws rather than hoe rams for tasks such as concrete or asphalt demolition and removal.
- The final noise reduction measures to be implemented and their associated details shall be determined by the construction-level noise analysis. The final noise reduction measures shall be included on all construction and building documents and/or construction management plans and submitted for verification to the City; implemented by the construction contractor through the duration of the construction phase; and discussed at the pre-demolition, -grade, and/or - construction meetings.

MM NOI-1c Traffic Noise Reduction Plan

Prior to issuance of building permits, the property owner/developer shall be responsible to implement the following measures to limit potential traffic noise source impacts:

- Any proposed development project that would include noise-sensitive land use development along noise impacted roadway segments identified in Table 3.13-8 shall demonstrate compliance with Municipal Code Section 15-2506 by submitting a final acoustical report. This report shall demonstrate that the proposed project incorporates sufficient noise attenuation features, if needed, to meet the City's exterior/interior noise performance standards. The individual project owner/developer shall submit the acoustic study to the Planning Director for review and approval. Upon approval by the City of Fresno, the proposed acoustical design features shall be incorporated into the proposed development. Noise reduction design features may include, but are not limited to, locating noise-sensitive development on the site to be shielded by structures (buildings, enclosures, or sound walls) or by using upgraded wall and window assemblies to ensure that acceptable interior noise levels are maintained.

MM NOI-1d Stationary Source Noise Reduction Plan

Prior to issuance of building permits, the property owner/developer shall be responsible to implement the following measures to limit operational stationary noise source impacts:

- Any proposed development projects that include unshielded parking areas within 175 feet, or unshielded truck loading docks within 300 feet, or unshielded mechanical ventilation equipment systems within 35 feet of a noise-sensitive receptor, shall demonstrate compliance with Municipal Code Section 15-2506 by submitting a site-specific acoustic study. These reports shall demonstrate that the proposed project incorporates sufficient noise attenuation features, if needed, to

meet the City of Fresno’s exterior/interior noise performance standards. The individual project owner/developer shall submit the acoustic study to the Planning Director for review and approval. Upon approval by the City, the proposed acoustical design features shall be incorporated into the proposed development. Noise reduction design features may include, but are not limited to, locating stationary noise sources on the site to be shielded by structures (buildings, enclosures, or sound walls) or by using equipment that has a quieter rating.

Level of Significance After Mitigation

Significant and unavoidable (construction noise). With implementation of MM NOI-1a and MM NOI-1b, construction noise impacts due to construction activities would be reduced to the extent feasible. However, given that details of individual development projects in the vicinity of the Plan Area are currently unknown, it is not possible to quantify the construction noise impacts at specific off-site or on-site sensitive receptors. Because these construction activities may occur near noise-sensitive receptors and because noise disturbances may occur for prolonged periods of time, construction noise impacts would remain significant and unavoidable.

Groundborne Vibration/Noise Levels

Impact NOI-2:	The proposed project could result in generation of excessive groundborne vibration or groundborne noise levels.
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Impact Analysis

This section analyzes both construction and operational groundborne vibration impacts. The City prohibits groundborne vibration that is discernible without the aid of instruments by a reasonable person at the lot lines of the site; however, vibrations from temporary construction activities are exempt from this standard. Therefore, for purposes of this analysis, the FTA’s vibration impact criteria are utilized to analyze construction vibration impacts. The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment Manual. The construction vibration impact criteria are summarized in Table 3.13-3 in the regulatory section above.

A significant impact would occur if existing structures at the project site or in the project vicinity would be exposed to groundborne vibration levels in excess of levels established by the FTA’s Construction Vibration Impact Criteria. Development of the Specific Plan would require the use of construction equipment which are vibration generators.

Short-term Construction Vibration Impacts to Off-site Receptors

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground 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 3.13-3 provides approximate vibration levels for construction activities.

Of the variety of equipment used during construction, impact pile drivers that could be used in the site preparation phase of construction would produce the greatest groundborne vibration levels. Impact pile drivers produce groundborne vibration levels ranging up to 0.644 inch per second (in/sec) PPV at 25 feet from the operating equipment. The heaviest type of mobile equipment that would produce the highest vibration levels would be a large vibratory roller produce groundborne vibration levels ranging up to 0.644 in/sec PPV as measured at 25 feet.

Construction vibration levels from future development projects could exceed the FTA's damage threshold criteria for receiving structures. Therefore, mitigation would be required to reduce this potential impact. Construction vibration sources can be mitigated to acceptable levels either at the source or on the adjacent property using alternate equipment, adequate setbacks, or by digging temporary trenches between the source and the receptor. For example, at a distance of 200 feet, vibration levels from an impact pile driver would attenuate to 0.02 in/sec PPV.

Therefore, implementation of MM NOI-2, which requires preparation of a Construction Vibration Reduction Plan for any nearby structure, would ensure that these vibration level impacts generated by future development projects would be reduced to a less than significant impact.

Operational Vibration Impacts

Based on the proposed types of land uses of the Specific Plan, future related development projects are not anticipated to include any permanent sources of vibration that would expose persons in the project vicinity to excessive groundborne vibration levels. In addition, there are no existing significant permanent sources of groundborne vibration located within the Specific Plan development area to which future development projects would be exposed. Therefore, project operational groundborne vibration level impacts would be considered less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM NOI-2 Construction Vibration Reduction Plan

Prior to issuance of grading and/or building permits, a note shall be provided on grading and building plans indicating that during grading and construction the property owner/developer shall be responsible for requiring contractors to implement the following measures to limit construction-related vibration impacts:

- For any future development projects that would necessitate the use of pile driving within 200 feet of an off-site structure shall submit a Construction Vibration Reduction Plan that identifies specific techniques, such as the depth and location of temporary trenching that would reduce potential vibration impacts to less than significant for the impacted structure.
- For any future development projects that would necessitate the use of large vibratory rollers within 30 feet of an off-site structure, or the use of other heavy construction equipment within 15 feet of an off-site structure, shall submit a

Construction Vibration Reduction Plan that identifies specific techniques, such as the depth and location of temporary trenching that would reduce potential vibration impacts to less than significant for the impacted structure.

- The individual project owner/developer shall submit the Construction Vibration Reduction Plan to the Planning Director for review and approval prior to issuance of building permits. Upon approval by the City, the construction vibration reduction measures shall be incorporated into the construction documents.

Level of Significance After Mitigation

Less than significant impact.

Excessive Noise Levels from Airport Activity

Impact NOI-3:	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.
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Impact Analysis

The nearest public airport to the project site is the Fresno Yosemite International Airport, located approximately 2 miles west of the nearest Specific Plan boundary. At this distance, the entire Plan Area is located outside of the airport noise contours. Therefore, implementation of the project would not expose persons residing or working in the Plan Area to noise levels from airport activity that would be in excess of normally acceptable standards. Therefore, no impact would occur.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

3.13.7 - Cumulative Impacts

The geographic scope of the cumulative noise analysis is limited by the range of potential noise impacts. Noise impacts tend to be localized; therefore, noise impacts for traffic and stationary noise sources are limited to approximately 500 feet from the source. This analysis evaluates whether impacts of the Specific Plan, together with impacts of cumulative development, would result in a cumulatively significant impact with respect to noise. This analysis then considers whether incremental contribution of the impacts associated with implementation of the Specific Plan would be significant. Both conditions must apply for cumulative effects to rise to the level of significance.

Construction Noise Impacts

The significance threshold for a cumulative construction noise impact would be a substantial temporary noise increase in areas in the project vicinity, which already experience excessive noise levels from construction activities. There are no major long-term development projects undergoing construction in the Plan Area that would constitute an existing cumulative impact. However, given

that details of individual development projects adjacent to the Plan Area are currently unknown, it is not possible to quantify future cumulative construction noise impacts that could occur if multiple developments were to construct simultaneously, which could constitute a cumulative noise impact. Because construction activities associated with implementation of the Specific Plan could then also occur simultaneously and because noise disturbances could occur for prolonged periods of time, there is the possibility for a cumulative construction noise impacts that would remain significant and unavoidable.

Traffic Noise Impacts

The significance threshold for a cumulative traffic noise impact would be a substantial permanent increase in traffic noise levels in the vicinity of the project along any roadway segment that already experiences noise levels in excess of normally acceptable standards for adjacent land uses. As shown in Table 3.13-8, several modeled roadway segments currently experience traffic noise levels that exceed the City's land use compatibility standards for new development proposed near transportation noise sources. This would be considered an existing cumulative impact. However, as shown in the traffic noise impact discussion above, for each of the existing impacted roadway segments, implementation of the Specific Plan would not result in a considerable contribution to this existing cumulative impact. Therefore, implementation of the project would not result in a potentially significant cumulatively considerable contribution to traffic noise impacts on roadway segments in the Plan Area or within 500 feet of the Plan Area. This impact would be less than significant.

Stationary Source Noise Impacts

The significance threshold for a cumulative stationary source operational noise impact would be a substantial temporary noise increase at any location that is already exposed to excessive noise levels from stationary source operational noise. There are no major permanent stationary noise sources in the Plan Area that would constitute an existing cumulative noise impact. Therefore, since there is not an existing cumulative stationary source noise impact in the Plan Area, implementation of the Specific Plan would result in a less than significant cumulative impact related to stationary source noise. In addition, as shown in the stationary source noise impact discussion, any proposed project in the Plan Area that would have stationary noise sources would be required to prepare a site-specific analysis and incorporate design measures, where necessary, to ensure potential impacts would be reduced to less than significant as measured at sensitive receptors. Therefore, implementation of the project would not result in a potentially significant cumulatively considerable contribution to stationary source noise impacts in the Plan Area or within 500 feet of the Plan Area. This impact would be less than significant.

Construction Vibration Impacts

Construction-related groundborne vibration impacts are very localized; therefore, only areas within approximately 50 feet of a construction site could potentially be affected by groundborne vibration resulting from construction activities. There are no major long-term development projects undergoing construction in the Plan Area that would constitute an existing cumulative groundborne vibration impact. Therefore, since there is not an existing cumulative groundborne vibration impact in the Plan Area, then implementation of the Specific Plan would result in a less than significant

cumulative impact related to construction groundborne vibration. Therefore, implementation of the project would not result in a potentially significant cumulatively considerable contribution to construction vibration impacts in the Plan Area or within 50 feet of the Plan Area. This impact would be less than significant.

Operational Groundborne Vibration Impacts

The only cumulatively considerable contribution to groundborne vibration conditions in the project vicinity would result from introduction of new permanent sources of groundborne vibration to an existing impacted environment. The only major sources of groundborne vibration in the project vicinity is railroad activity along the rail line located over 9,000 feet west of the proposed project's development areas. Implementation of the proposed project would not introduce any new permanent sources of groundborne vibration to the project vicinity and would not increase railroad activity. Therefore, implementation of the proposed project would not result in a potentially significant cumulatively considerable contribution to vibration conditions in the project vicinity. This impact would be less than significant.

Level of Cumulative Significance Before Mitigation

Potentially significant impact (construction noise).

Less than significant impact (all other noise and vibration impacts).

Cumulative Mitigation Measures

No mitigation is available that would reduce cumulative construction noise impacts to less than significant.

Level of Cumulative Significance After Mitigation

Significant and unavoidable impact (construction noise).

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3.14 - Population and Housing

This section describes existing population and housing in the region, County, and project area as well as the relevant regulatory framework. This section also evaluates the possible impacts related to population and housing that could result from implementation of the proposed project. Information included in this section is based, in part, on databases and reports provided in the Fresno General Plan (General Plan) and Municipal Code, and by California Department of Finance (CDF), and the United States Census Bureau.

As further discussed in Chapter 1, Introduction, three public comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to population, housing, and employment:

- Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the planning area.
- Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impact.
- Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.14.1 - Existing Conditions

This section describes the existing population and housing conditions within the Plan Area, as well as in the City of Fresno (City) as a whole, to provide context for the analysis of the proposed project.

Land within the Plan Area includes a mixture of industrial, agricultural, commercial, and residential land uses. Rural residential development is primarily concentrated in the area between State Route (SR) 180 and McKinley Avenue but also scattered throughout the Plan Area. The pattern transitions into agricultural uses toward the southeastern end of the Plan Area, closer to land outside the city limits within the City's Sphere of Influence (SOI) and County-owned land. The predominant existing use in the Plan Area (approximately 5,000 acres) is agriculture, primarily vineyards, orchards, and vegetable farms. Pockets of commercial uses are scattered through the Plan Area. Industrial uses are located immediately adjacent to, or enclosed by, residential neighborhoods. Additionally, there are vacant lands across the Plan Area.

Population

As of April 2020, the U.S. Census Bureau determined that City of Fresno had a population of 542,107, up from 494,665 in 2010, which is a population increase of 9.5 percent. As of 2020, the City had 170,137 households.¹

¹ United States Census Bureau. 2022. Quick Facts: Fresno city, California. Website: <https://www.census.gov/quickfacts/fact/table/fresnocitycalifornia,fresnocountycalifornia/PST045221>. Accessed May 20, 2022.

As of July 2021, Fresno County included 336,473 households and had a total population of 1,013,581. Between the years 2020 and 2021, there was a 0.5 percent population increase in the County. Between the years of 2010 and 2020, the population increased from 930,450 to 1,008,654, which is an 8.5 percent population increase countywide.²

Currently, there are 700 residential parcels within the Plan Area, which accommodate 713 single-family homes and 13 mobile homes. According to the CDF, the average household size in the City is 2.99 persons per household.³ Therefore, the estimated population of the Plan Area is approximately 2,171 persons.⁴

Population Projections

The Fresno Council of Governments (Fresno COG) anticipates the City's growth will increase from 621,540 people in 2025 to 728,200 people in 2050. Additionally, the total number of new households between 2019 and 2025 will be 41,670.⁵

As described above, there are currently 700 residential parcels within the Plan Area, which accommodate 713 single-family homes and 13 mobile homes. The General Plan projects that the Plan Area would have approximately 15,000 housing units by the year 2035. At its full buildout, the Plan Area is expected to have 45,000 housing units. Using the average household size in the City of 2.99, the Plan Area is expected to have a total population of approximately 44,850 persons by 2035 and approximately 134,550 persons at full buildout.

The population projections described above are consistent with the population projections and methodology found within the City's General Plan and utilize the best data available at the time this analysis was prepared. This approach is consistent with requirements to maintain consistency with the General Plan. By evaluating the proposed project within the context of the General Plan, the City is able to comprehensively assess future demand for resources such as water and energy, as well as public services such as police, fire, and education. Utilizing projections for the proposed project that are consistent with the General Plan allows for the development of Specific Plan Policies and Programs that are reflective of the City's planned and approved growth identified in the General Plan.

Housing

Between 2016 and 2020, the average household size in the City was 3.04 persons per dwelling unit, about 3 percent lower than the countywide average of 3.14.⁶ The total number of new households between 2019 and 2025 is anticipated to be 41,670.

² United States Census Bureau. 2022. Quick Facts: Fresno city, California. Website:

<https://www.census.gov/quickfacts/fact/table/fresnocitycalifornia,fresnocountycalifornia/PST045221>. Accessed May 20, 2022.

³ State of California Department of Finance. May 2022. E-5 Population and Housing Estimates for Cities, Counties and the State, 2020-2022. Website: <https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/>. Accessed June 29, 2022.

⁴ $(700 \text{ single-family homes} + 13 \text{ mobile homes}) \times 2.99 \text{ persons per household} = 2,170.74$

⁵ Fresno Council of Governments (Fresno COG). 2021. Fresno County 2050 Growth Projections. Website: <https://www.fresnocog.org/project/demographic-data/>. Accessed May 20, 2022.

⁶ United States Census Bureau. 2022. Quick Facts: Fresno city, California. Website: <https://www.census.gov/quickfacts/fact/table/fresnocitycalifornia,fresnocountycalifornia/PST045221>. Accessed May 20, 2022.

Employment

According to the U.S. Census Bureau, there were a total of 284,131 people employed in Fresno in 2020.⁷ The Fresno COG job projections indicate that employment will increase from 257,140 in 2019 to 299,960 in 2050.⁸

As of May 2022, the unemployment rate in the City was 5.2 percent.⁹ Given that the Plan Area has an estimated population of 2,171 persons, and that approximately 39.8 percent of the City's residents are either over the age of 65 or below the age of 18, it can be estimated that there are approximately 1,371 people employed in the Plan Area.¹⁰

3.14.2 - Regulatory Setting

State

California Housing Element Law

The State Housing Element Law (Government Code Chapter 1143, Article 10.6, §§ 65580 and 65589) requires each city and county to adopt a general plan for future growth. This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. The amount of housing that must be accounted for in a local housing element is determined through a process called the Regional Housing Needs Allocation (RHNA). In the RHNA process, the State gives each region a number representing the amount of housing needed, based on existing need and expected population growth.

At the State level, the California Department of Housing and Community Development (HCD) estimates the relative share of the State's anticipated population growth that would occur in each county in the State, based on CDF population projections and historic growth trends. Where there is a regional COG, such as the Fresno COG, the HCD provides the regional housing need to the council. The council then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares provides cities and counties the opportunity to comment on the proposed allocations. The HCD oversees the process to ensure that the COG distributes its share of the State's projected housing need.

Each city and county must update its general plan housing element on a regular basis pursuant to the requirements of Government Code Section 65580, *et seq.* Among other things, the housing element must incorporate policies and identify potential sites that would accommodate a city's share of the regional housing need. Before adopting an update to its housing element, a city or county must submit the draft to the HCD for review. The HCD will advise the local jurisdiction whether its housing element complies with the provisions of California Housing Element Law. The regional COGs are required to assign regional housing shares to the cities and counties within their

⁷ United States Census Bureau. 2022. Quick Facts: Fresno city, California. Website: <https://www.census.gov/quickfacts/fact/table/fresnocitycalifornia,fresnocountycalifornia/PST045221>. Accessed May 20, 2022.

⁸ Fresno Council of Governments (Fresno COG). 2021. Fresno County 2050 Growth Projections. Website: <https://www.fresnocog.org/project/demographic-data/>. Accessed May 20, 2022.

⁹ State of California Employment Development Department (EDD). Interactive Maps and Data Tools. Labor Force and Unemployment Interactive Map. Website: <https://www.labormarketinfo.edd.ca.gov/data/interactive-labor-market-data-tools.html>. Accessed June 29, 2022.

¹⁰ $(2,171 \text{ persons} - (0.398 * 2,171) * (1 - 0.052))$

region on a similar schedule. At the beginning of each cycle, the HCD provides population projections to the regional COGs, who then allocate shares to their cities and counties. The shares of the regional need are allocated before the end of the cycle so that the cities and counties can amend their housing elements by the deadline.

Regional

Regional Housing Needs Allocation

State Housing Element Law, Government Code Chapter 1143, Article 10.6, Sections 65580 and 65589, requires development of an RHNA. The RHNA, which was adopted by the Fresno COG in November of 2022, defines local housing market areas. Each jurisdiction within a market area is then assigned, and is responsible for, a proportional share of the area's non-market rate housing needs. According to the Fresno County RHNA Plan, the City of Fresno falls into the Fresno-Clovis Metropolitan Area (FCMA) and receives an allocation of units based on the City's share of the housing need within that boundary. The FCMA also includes the City of Clovis, the unincorporated communities of Easton and Friant, and several unincorporated neighborhoods such as Calwa, Fig Garden, Malaga, and Sunnyside.

The Fresno County RHNA Plan covers an 8-year planning period from 2023 to 2031. The Plan includes housing at four different income levels, including very low, low, moderate, and above-moderate. As determined by Fresno COG, the City of Fresno's total housing unit capacity allocation is 36,866. This allocation translates into sites that could accommodate housing affordable to households that fall within the various income categories as follows:

- Extremely and Very Low Income: 9,440 dwelling units
- Low Income: 5,884 dwelling units
- Moderate Income: 5,638 dwelling units
- Above-Moderate: 15,904

Local

Fresno General Plan

The General Plan is the City's primary policy planning document, providing the framework for management and utilization of the City's physical, economic, and human resources. Adopted on December 18, 2014, the General Plan includes 10 separate elements, including a Housing Element chapter. Each Element of the General Plan contains goals, objectives, and implementing policies that guide development within the City. The City's Policies related to population and housing in the City are listed below.

Economic Development and Fiscal Sustainability Element

Objective ED-1 Support economic development by maintaining a strong working relationship with the business community and improving the business climate for current and future businesses.

- Objective ED-2** Support local business start-ups and encourage innovation by improving access to resources and capital and help overcome obstacles hampering economic development.
- Objective ED-3** Attract and recruit businesses and offer incentives for economic development.
- Objective ED-4** Cultivate a skilled, educated, and well-trained workforce by increasing educational attainment and the relevant job skill levels in order to appeal to local and non-local businesses.

Urban Form Element

- Objective UF-12** Emphasize the opportunity for a diversity of districts, neighborhoods, and housing types.
- Policy UF-1-a** **Diverse Neighborhoods.** Support development projects that provide Fresno with a diversity of urban and suburban neighborhood opportunities.
- Policy UF-1-d** **Range of Housing Types.** Provide for diversity and variation of building types, densities, and scales of development in order to reinforce the identity of individual neighborhoods, foster a variety of market-based options for living and working to suit a large range of income levels, and further affordable housing opportunities throughout the City.
- Policy UF-1-e** **Unique Neighborhoods.** Promote and protect unique neighborhoods and mixed-use areas throughout Fresno that respect and support various ethnic, cultural and historic enclaves; provide a range of housing options, including furthering affordable housing opportunities; and convey a unique character and lifestyle attractive to Fresnoans. Support unique areas through more specific planning processes that directly engage community members in creative and innovative design efforts.
- Policy UF-1-f** **Complete Neighborhoods, Densities, and Development Standards.** Use Complete Neighborhood design concepts and development standards to achieve the development of Complete Neighborhoods and the residential density targets of the General Plan.
- Objective UF-13** Locate roughly one-half of future residential development in infill areas—defined as being within the City on December 31, 2012— including the Downtown core area and surrounding neighborhoods, mixed-use centers and transit-oriented development along major BRT [Bus Rapid Transit] corridors, and other non-corridor infill areas, and vacant land.

Housing Element

- Objective H-1** Provide adequate sites for housing development to accommodate a range of housing by type, size, location, price, and tenure.
- Policy H-1-a** Implement land use policies and standards that allow for a range of residential densities and products that will enable households of all types and income levels the opportunity to find suitable ownership or rental housing.
- Policy H-1-b** Encourage development of residential uses in strategic proximity to employment, recreational facilities, schools, neighborhood commercial areas, and transportation routes.
- Policy H-1-c** Promote the development of affordable and special needs housing near transit and/or smart growth areas.
- Policy H-5-g** Create equitable and affordable housing options throughout the City that provide incentives to residents for finding housing in high opportunity areas and to developers for building affordable housing in high opportunity areas.
- Objective H-2** Assist in the development of adequate housing to meet the needs of extremely low-, very low-, low-, and moderate-income households.
- Policy H-2-a** Facilitate housing development that is affordable to extremely low-, very low-, low-, and moderate-income households by providing technical assistance, regulatory incentives and concessions, and financial resources as funding permits.
- Policy H-2-b** Encourage both the private and public sectors to produce or assist in the production of housing, with particular emphasis on housing affordable to persons with disabilities, elderly, large families, female-headed households with children, and people experiencing homelessness.
- Policy H-2-c** Continue to utilize federal and State subsidies to the fullest extent to meet the needs of lower-income residents, including extremely low-income residents.
- Policy H-2-d** Support regional efforts to address homelessness, including the Fresno- Madera Continuum of Care.
- Policy H-2-e** Support and coordinate with agencies and service providers offering foreclosure services.
- Policy H-2-f** Promote and encourage sustainable development and green building practices for all new residential development and for the retrofitting of existing housing.
- Objective H-3** Address, and where possible, remove any potential governmental constraints to housing production and affordability.

- Policy H-3-a** Review and adjust as appropriate residential development standards, regulations, ordinances, departmental processing procedures, and residential fees related to rehabilitation and construction that are determined to be a constraint on the development of housing.
- Objective H-5** Continue to promote equal housing opportunity in the City’s housing market regardless of age, disability/medical condition, race, sex, marital status, ethnic background, source of income, and other factors.
- Policy H-5-a** Prohibit discrimination in the sale, rental, or financing of housing based on race, color, ancestry, religion, national origin, sex, sexual orientation, gender identity, age, disability/medical condition, familial status, marital status, source of income, or any other arbitrary factor.
- Policy H-5-b** Assist in the enforcement of fair housing laws by providing support to organizations that can receive and investigate fair housing allegations, monitor compliance with fair housing laws, and refer possible violations to enforcing agencies.
- Policy H-5-c** Provide equal access to housing for special needs residents such as people experiencing homelessness, elderly individuals, and persons with disabilities.
- Policy H-5-d** Promote the provisions of disabled-accessible units and housing for persons with mental and physical disabilities.
- Policy H-5-e** Ensure that all development applications are considered, reviewed, and approved without prejudice to the proposed residents, contingent on the development application’s compliance with all entitlement requirements.
- Policy H-5-f** Accommodate persons with disabilities who seek reasonable waiver or modification of land use controls and/or development standards pursuant to procedures and criteria set forth in the Development Code.
- Policy H-5-g** Create equitable and affordable housing options throughout the City that provide incentives to residents for finding housing in high opportunity areas and to developers for building affordable housing in high opportunity areas.
- Policy H-5-h** Consult with a wide range of groups throughout the community and consider environmental justice issues in the development and update of regulations, guidelines and other local programs.
- Policy H-5-i** Increase or maintain resources to establish and support outreach, public education and community development activities through community- based and neighborhood organizations.

Fresno Southeast Development Area Specific Plan

The Fresno Southeast Development Area (SEDA) Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to population and housing:

Community Farming and Agriculture

Objective CF-1 Conserve strategic farmland outside the Southeast Development Area most likely to sustain economically viable agriculture over the long term. While the efficient, compact development pattern of the SEDA Specific Plan reduces development pressure on surrounding agricultural land, it must be bolstered by policies that directly limit farmland conversion. These policies require inter-governmental coordination between the cities of Fresno, Sanger, Clovis, Fresno County, and other neighboring cities.

Policy CF-1.2 Future Growth Planning. Support planning efforts that channel new growth to areas already committed to urban uses inside the current SOIs of incorporated cities in Fresno County.

Cultural and Historic Resources

Objective CR-1 Preserve the region's culturally significant landscapes outside the Southeast Development Area by reducing development pressure on those landscapes.

Policy CR-1.1 Future Growth. Channel new growth to areas already committed to urban uses. This includes areas currently inside the Fresno Sphere of Influence (SOI) and those designated as SOI expansion areas in the Fresno General Plan.

Housing Choice and Affordability

Objective HC-1 Mix housing types and designs throughout the Plan Area to respond to the needs of all household types. The Southeast Development Area Specific Plan accommodates a diverse range of household demographics and preferences with housing types that range from higher-density multifamily homes to medium-lot single-family homes.

Policy HC-1.1 Age in Place Housing. Plan for housing suitable for different stages of life, including smaller, more affordable units for first-time buyers, singles, young couples, families, and older homeowners, as well as opportunities for multi-generational housing, housing for seniors and long-term care/assisted living facilities.

Policy HC-1.2 Family Housing. Encourage the development of housing to larger households and households with children, particularly in areas served by high-capacity transit. The City of Fresno should set targets for the provision of two-plus bedroom homes for purchase and rent.

Policy HC-1.3 Accessory Dwelling Units. Allow the development of accessory dwellings or “granny flats” to increase density and affordability while maintaining character.

Policy HC-1.4 Accessible Housing. Construct housing with practical features that provide basic access and functionality for people of all ages and various mobility and ambulatory capabilities.

Policy HC-1.5 Housing Diversity. Encourage the inclusion of housing opportunities which provide for a range and diversity of housing types.

Objective HC-2 Build housing affordable to all Fresno residents using an array of regulatory, market-based, and other strategies.

Policy HC-2.1 Provision of Affordable Housing. Provide funding assistance, partnership support, and take other actions as necessary to support the construction of new affordable housing within the SEDA to meet RHNA-based targets as specified in the City of Fresno General Plan Housing Element.

The Housing Choice and Affordability Chapter details a comprehensive set of programs to provide an adequate supply of affordable housing. Programs entail actions by the Planning and Development Department, Fresno Housing (previously known as the Fresno Housing Authority), private and non-profit developers and others as applicable. Current programs include:

- Land use planning to provide for multifamily units, increased housing density, and mixed-use development.
- Actions to construct housing for specific groups, including farmworkers; special needs persons; homeless and recently homeless persons; very low-income large families; extremely low-, very low-, and low-income seniors; and other extremely low- and very low-income households.
- Strengthening partnerships with affordable housing developers.
- Increasing opportunity through an equitable communities program, which calls for location of affordable housing in areas of high opportunity.
- Preventing Displacement.
- Make incentives available to all new residential developments that target at least 25 percent of new units for families earning 80 percent of the area median income or below.

For more detailed information, please refer to the Fresno General Plan Housing Element.

Policy HC-2.2 Publicly Owned Land. Leverage publicly owned land to provide housing.

- **Land Acquisition:** Consider early purchase of parcels within the SEDA near both community amenities and transit to minimize land acquisition cost.

- **Excess Land:** Consider developing publicly owned lands with 100 percent affordable housing if the public agency deems the land in excess of their needs.
- Consider establishing a community land trust to create a pool of owned affordable housing in perpetuity.

Policy HC-2.3 Distribution of Housing. Promote affordable housing opportunities that are distributed throughout the Southeast Development Area to avoid concentration in any one area.

Policy HC-2.4 Economic Incentives. Develop economic incentives to encourage private sector developers and residential developments to construct accessible units in excess of the minimums. The State of California Building Code does not require that single-family homes and developments be accessible. This creates a barrier of choice and options for people with disabilities who wish to purchase homes. The plan calls for this expectation locally as is described in the General Plan. Economic incentives could include density bonuses, parking requirement reductions, and streamlined permitting.

Make incentives available to all new residential developments that target at least 25 percent of new units as accessible.

Policy HC-2.5 Secure Affordability. Maintain long-term affordability by using covenants and deeds, equity sharing, and other mechanisms.

Objective HC-3 Link housing and transportation together to limit family expenditures on both housing and transportation. The multimodal transportation network connects housing and jobs within the Southeast Development Area and to other major regional centers, facilitating internal travel by non-automobile means. The Urban Form Chapter addresses the location, distribution, and standards for transportation infrastructure investment, combining transportation options with land use development to ultimately lower travel costs for SEDA residents and employees.

Policy HC-3.1 Coordinated Land Use and Transportation Planning. Support regional and citywide planning efforts, such as the Regional Transportation Plan and Sustainable Communities Strategy, the Fresno General Plan, and the City's updated Greenhouse Gas Reduction Plan that encourage the development of housing near new and existing public transportation investments.

Policy HC-3.2 Travel. Encourage accessible, mixed-use development that incorporates housing and jobs, while lowering daily vehicle miles traveled.

Policy HC-3.3 Smart Land Uses. Build smaller-lot single-family and multifamily housing types which use less energy and water than larger units.

Urban Form

Objective UF-1 Create complete neighborhoods in the Southeast Development Area that integrate housing, business and retail amenities. Implement a Southeast Development Area plan that balances and mixes housing, jobs, commercial businesses, services, and public facilities to help meet existing thresholds for lower vehicle miles traveled, reduced air pollution, and the efficient use of groundwater resources in compliance with the Sustainable Groundwater Management Act of 2014.

Policy UF-1.2 Jobs-Housing Balance. Maintain a target jobs-housing balance of at least one job to 1.25 housing units within the Plan Area.

Policy UF-1.3 Employment Centers. Promote employment-generating development within the Plan Area to expand Fresno's employment base beyond traditional industries (as specified in the policies of Economic Opportunity Chapter, Objective EO-2).

Policy UF-1.4 Housing Choices. Encourage housing choices affordable to a range of Fresno residents by implementing the housing policies of the Housing Choice and Affordability Element.

Objective UF-2 Provide a mix of Regional, Community, and Neighborhood Town Centers where individuals can live, work and play.

Policy UF-2.3 Design & Development Principles. The following principles are provided to guide the creation of public and private spaces within the Plan Area. More specific guidelines and regulations regarding many of these elements are found in the SEDA Development Code update section of this Chapter.

- **Pattern of streets, blocks, and buildings.** The centers will be designed with pedestrian oriented streets, blocks, buildings, and public spaces based on the block connectivity and size standards specified in the SEDA Development Code update, including a transportation network which will be based on a high-density grid system. Public spaces and civic buildings shall be arranged along streets in order to create a network of civic spaces of varying size and function.
- **Building character and orientation.** The character, massing, and orientation of buildings will contribute to a cohesive urban fabric that reinforces public spaces, creates a sense of intimacy, and visually distinguishes the center from surrounding districts.

As shown in Figure 2.1 regarding building orientation, the front edges of buildings shall meet or approach front and side property lines according to the requirements of the SEDA Development Code update. Visual diversity will be created through variations in setback, massing, and architectural details. In addition, solar exposure and orientation shall be considered in the layout and design of all streets, blocks, and buildings to maximize energy and resource efficiency.

- **Center core.** Each town center will feature a core that provides a common gathering place not only within the center, but surrounding districts as well. The core will accommodate the highest capacity for retail, employment, civic, and pedestrian activity of each center, and will design streets and buildings with pedestrian comfort and visual interest at the forefront.
- **Location and orientation of commercial activity.** Commercial activity is permitted throughout Regional and Community Town Centers, but the highest-intensity commercial uses (and/or ground floor commercial) will be located along all Arterials and Collector Streets and in the core area of the town center. Small convenience retail establishments, such as corner stores, can also occupy a portion of the ground floors of residential and office buildings outside of the core of centers. Ideally, office uses should be clustered around public transit stations and squares.
- **Location and orientation of large-format retail activity.** Large-format retail establishments (i.e., “big box” retail) may be located in the Regional Town Center but are discouraged in Community or Neighborhood Town Centers in order to preserve the local neighborhood character of those areas. The urban design and parking standards of large-format retail stores will be consistent with the standards and policies of these districts. Large-format retail establishments served by surface parking will be located at the edges of the Regional Town Center, preferably adjacent to major regional roadways or highways.
- **Character, location, and orientation of public spaces.** Public gathering places that provide visual relief and passive recreation should be located in the Mixed-Use Districts and should be surrounded by civic buildings and any commercial or mixed-use buildings located in the town center.
- **Location and orientation of civic buildings.** Major civic buildings (e.g., libraries, schools, and government offices) will serve as focal points of public spaces within centers. Providing attention to distinctive building details, entry features and varying setbacks will allow civic buildings to stand out from other structures in the center. Wherever possible, civic buildings will be located in proximity to and open onto public spaces.

3.14.3 - Thresholds of Significance

The Lead Agency utilizes the criteria in the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist as thresholds to determine whether impacts to population and housing are significant environmental effects.

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts to resources are significant. These questions reflect the input of planning and environmental professionals at the Governor’s Office of Planning and Research and the California Natural Resources Agency, based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. Accordingly, the City has derived its significance criteria, based in part on the questions posed in Appendix G. These significance criteria are as follows:

The proposed project would be considered significant if the project would:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

3.14.4 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

Population Growth

Impact POP-1:	The proposed project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
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Impact Analysis

As discussed in Chapter 2, Project Description, buildout of the proposed project could generate up to approximately 45,000 homes and 37,000 jobs as well as 1,820 acres of employment-generating land uses such as office, research and development, and institutional uses by the year 2050. Based on the average household size in the City of 2.99 persons per household, this anticipated future development could accommodate up to 134,550 residents. The population potential for the Plan Area is within the population growth anticipated by the General Plan, which anticipates growth of up to 226,000 additional residents by 2035, consistent with the proposed project. Accordingly, implementation of the proposed project would not exceed the City's anticipated population growth.

According to the General Plan, the City projects that the total additional residential development capacity by the General Plan's horizon in 2035 would be approximately 76,000 additional dwelling units and by the General Plan's buildout in 2050 would be approximately 145,000 additional dwelling units between both the infill and growth areas.¹¹ These values constitute the planned growth anticipated by the City for residential units within its SOI. According to General Plan Tables 1-3 (Residential Development Capacity at General Plan Horizon) and 1-4 (Residential Development Capacity at General Plan Buildout), the proposed project would generate up to 14,900 dwelling units at General Plan Horizon and an additional 25,000 at buildout occurring sometime after 2050, for a total of 45,000 new dwelling units, comprising approximately 31 percent of the total planned capacity for the City. Buildout of the proposed project is considered planned growth and would provide housing to meet the demand for new residential units.

New jobs in the Plan Area would be created by development of commercial, office, and other employment-generating uses. Growth under the proposed project would occur incrementally over a

¹¹ City of Fresno. 2014. General Plan, Table 1-2, Residential Development Capacity Under Horizon and Buildout, and Table 1-3, Residential Development Capacity Under General Plan Horizon. Website: https://cityoffresno.wpenginepowered.com/darm/wp-content/uploads/sites/10/2022/12/upload_temp_Consolidated-GP-10-13-2022.pdf. Accessed January 20, 2023.

period of approximately 25 years and would be guided by a policy framework in the proposed project that is generally consistent with many of the principal goals and objectives established in the General Plan and 2023-2031 Housing Element. The proposed project is consistent with Economic Opportunity Objectives ED-1, -2, -3 and -4 that seek to promote employment growth. As the goals and vision of the proposed project are to facilitate new housing and jobs, implementation of the proposed project would support citywide planning efforts. Therefore, this additional growth would be consistent with the citywide planning objectives and would not be considered unplanned growth. Furthermore, as shown in Table 3.14-1 below, the proposed project would promote a balance of jobs and housing in the Plan Area, consistent with the General Plan. As a result, impacts to population growth associated with potential future development under the proposed project would be less than significant.

Table 3.14-1: Projected (2050) Jobs to Housing Ratio for the Planning Area

Housing Units at Buildout	Jobs at Buildout	Job to Housing Ratio
45,000	37,000	1.22
Source: Fresno Council of Governments (Fresno COG). 2021. Fresno County 2050 Growth Projections. Website: https://www.fresnocog.org/project/demographic-data/ . Accessed May 20, 2022.		

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Housing Displacement/Replacement Housing

Impact POP-2: **The proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.**

Impact Analysis

The proposed project would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. As described in Chapter 2, Project Description, of this Recirculated Draft PEIR, the proposed project would accommodate up to 45,000 dwelling units of varying types, sizes, densities, and affordability levels at full buildout. Since implementation of the proposed project would result in a net increase in housing, it would not require replacement housing outside of the Plan Area.

Currently, there are 700 residential parcels within the Plan Area, which accommodate 713 single-family homes and 13 mobile homes. No housing is proposed to be demolished under the proposed project, and buildout of the proposed project would not require the demolition of existing housing units to produce new units. Development under the proposed project would be required to comply with the General Plan's Housing Choice and Affordability Chapter, which promotes equal housing opportunity in the City's housing market, as well as the proposed project's Housing Element, which

provides further specifications regarding housing opportunities, including the provision of an adequate supply of housing and housing types, in the Plan Area.

Furthermore, as the City receives development applications for subsequent development under the proposed project, those applications will be reviewed by the City for compliance with the policies and objectives of the General Plan and the proposed SEDA Specific Plan to ensure the displacement of housing or significant need for new housing does not occur.

As such, the proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

3.14.5 - Cumulative Impacts

The geographic context for analysis of cumulative impacts related to population, housing, and employment includes the Plan Area, the City boundary and SOI, in combination with impacts from projected growth in the rest of Fresno County and the surrounding region. Impacts from cumulative growth are considered in the context of their consistency with regional planning policies. This analysis evaluates whether impacts of the proposed project, together with impacts of cumulative development, could result in a cumulatively significant impact to public services. This analysis then considers whether the incremental contribution of impacts associated with implementation of the proposed project would be significant. Both conditions must apply for a project's cumulative effects to rise to the level of significance.

The general plans and other planning documents prepared by the jurisdictions within Fresno County would be required to develop land use plans that comply with State law and that would accommodate the existing and forecasted population, similar to the long-range planning guidance included in the proposed project. Consistent with State law, these planning documents would be required to provide adequate housing to accommodate forecasted numbers of people within the jurisdiction, and displaced development, if any, would be replaced primarily within the jurisdiction. Further, new development would be required to address potential environmental impacts as part of individual project review. As such, cumulative development would not induce substantial unplanned population growth, either directly or indirectly. Because cumulative projects would comply with all applicable land use plans to provide adequate development within a jurisdiction, cumulative impacts would be less than significant.

Moreover, the proposed project would not have a cumulatively considerable contribution to the less than significant cumulative impact. As described above, the proposed project would not induce a substantial amount of growth that has not been adequately planned for or require the construction

of replacement housing elsewhere. As the projected population growth resulting from the proposed project is within projected growth estimates of the City's General Plan, the proposed project's contribution to this less than significant cumulative impact would not be cumulatively considerable. The proposed project would not result in any policies or physical improvements that would result in direct or indirect unplanned regional growth or result in substantial displacement of people or the need to construct additional housing and therefore would not contribute to a cumulative impact. Therefore, the proposed project would not have a cumulatively considerable cumulative impact. Cumulative impacts would be less than significant.

Level of Cumulative Significance Before Mitigation

Less than significant impact.

Cumulative Mitigation Measures

None required.

3.15 - Public Services

3.15.1 - Introduction

This section describes the existing conditions related to public services in the City of Fresno (City) and Plan Area, as well as the relevant regulatory framework. This section also evaluates the possible impacts related to public services that could result from project implementation of the proposed project. Descriptions and analysis in this section are based, in part, on information provided by the Fresno General Plan (General Plan), the Fresno Fire Department (FFD) website, City of Fresno Fire Department Standard Operating Procedures Manual, City of Fresno Municipal Code (Municipal Code), Fresno County Sheriff's Office website, California Department of Education website, and Fresno County Library website.

As further described in Chapter 1, Introduction, seven public comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to public services:

- Requests that the Draft PEIR analyze whether the number of schools shown is appropriate to adequately serve the Southeast Development Area (SEDA) buildout population.
- States that a new high school (Sanger West) and middle schools serving 7-8 grades would serve SEDA population.
- Recommends that at least one additional high school and one additional middle school would be needed to serve the buildout of SEDA.
- States that any future school site locations designated as part of the Specific Plan should be considered conceptual rather than locked into parcel location.
- Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the Plan Area.
- Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impact.
- Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.15.2 - Environmental Setting

Fire Protection and Emergency Medical Services

Fresno Fire Department

The Fresno Fire Department (FFD), headquartered at 911 H Street, provides fire prevention and suppression, emergency medical care, hazardous materials, urban search and rescue, water rescue, emergency preparedness planning, hydrant flow maintenance, and public education coordination

services to over 540,000 City residents and the Fig Garden Fire Protection District (FGFPD).¹ The FFD is under contract to provide services for the FGFPD through 2035 and participates in automatic aid agreements with the City of Clovis and the Fresno County Fire Protection District through which emergency fire and medical assistance are provided by the nearest available station.²

Stations

The FFD operates a total of 21 fire stations, including the Airport Rescue Fire Fighting (ARFF) station located at the Fresno Yosemite International Airport. The Department also provides responses to hazardous material, water rescue, and urban search and rescue incidents through specialized teams. Currently, there are no existing fire stations within the Plan Area. According to the Fresno Municipal Code (Municipal Code), Section 12-4.508-E requires that new residential developments with four or fewer units per building must be within a 5-mile “running distance” of a fire station. The Municipal Code defines running distance as the actual distance that must be traveled on public streets or right-of-way from a fire station to reach the scene of a fire incident. All other developments, including residential developments with more than four units per building, must be located within 3 miles of an existing fire station.³ As shown in Table 3.15-1 Fresno Fire Stations, Station 15 is the closest to the Plan Area, located roughly 1.92 miles to the west at 6530 East Park Circle Drive. Stations 1, 4, 7, 8, and 10 are located within 5 miles of the Plan Area.⁴ The table below shows all fire stations in the City and their distance from the boundary of the Plan Area.

Table 3.15-1: Fresno Fire Stations

Station Number ¹	Address	Distance to Plan Area Boundary (miles)
1*	1264 North Jackson Avenue, Fresno, CA	4.62
2	7114 North West Avenue, Fresno, CA	10.30
3	1406 Fresno Street, Fresno, CA	5.18
4*	3065 East Iowa Avenue, Fresno, CA	6.04
5	3131 North Fresno Street, Fresno, CA	7.04
6	4343 East Gettysburg Avenue, Fresno, CA	5.49
7*	2571 South Cherry Avenue, Fresno, CA	4.01
8*	1428 South Cedar Avenue, Fresno, CA	5.05
9	2340 North Vagedes Avenue, Fresno, CA	8.95
10*	5545 East Aircorp Way, Fresno, CA	2.33
11	5544 North Fresno Street, Fresno, CA	7.30

¹ City of Fresno Fire Department. Website: <https://www.fresno.gov/fire/fire-suppression/>. Accessed June 7, 2022.

² City of Fresno Fire Department. 2019. Standard Operating Procedures Manual, Section 210.001 Automatic Aid Agreements. Website: <https://documents.fresno.gov/WebLink/DocView.aspx?id=4602904&dbid=0&repo=LF-Repository&cr=1>. Accessed June 17, 2022.

³ City of Fresno. 2023. City of Fresno Municipal Code, Section 12-4.508-E. Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH12IMFEHIREOTMITO_ART4.5URGRMA_S12-4.508UGFIST. Accessed March 22, 2023.

⁴ City of Fresno Fire Department. 2022. Station Locations web page. Website: <http://www.fresno.gov/fire/station-locations/>. Accessed June 8, 2022.

Station Number ¹	Address	Distance to Plan Area Boundary (miles)
12	2874 West Acacia Avenue, Fresno, CA	10.56
13	815 East Nees Avenue, Fresno, CA	7.75
14	6239 North Polk Avenue, Fresno, CA	13.31
15*	5630 East Park Circle Drive, Fresno, CA	1.92
16	2510 North Polk Avenue, Fresno, CA	12.48
17	10512 North Maple Avenue, Fresno, CA	8.64
18	5938 North La Ventana Avenue, Fresno, CA	14.57
19	3187 West Belmont Avenue, Fresno, CA	10.28
20	4537 North Wishon Avenue, Fresno, CA	8.26
ARFF ^{2*}	5065 East Andersen Avenue, Fresno, CA	3.24
Notes:		
¹ An asterick indicates that the fire station is within in 5 miles of the Plan Area boundary.		
² ARFF indicates the Airport Rescue Fire Fighting station		
Source: Fresno Fire Department (FFD) 2022.		

Equipment and Staffing

FFD employs approximately 401 personnel including 347 uniformed firefighter members, 25 sworn non-safety staff, and 29 civilian members. As of July 2022, the Fire Department is staffed with 95 members on duty daily within the City and FGFPD, and the City aims to bring this number to 103 on duty firefighters each day.⁵ National Fire Protection Association (NFPA) 1710 standards identify minimum company staffing as four firefighters on duty per engine company, and four firefighters on duty per truck company.⁶ Department resources include 19 engine companies, five truck companies, and two aircraft rescue firefighting units. Additional resources including two water rescue vehicles, one HazMat unit, and one Heavy Urban Search and Rescue (USAR) unit are cross staffed at three stations. Department staff and resources are divided across four battalions, each managed by a Battalion Chief. As of 2022, Fresno employed 0.62 firefighters per 1,000 residents, lower than the Statewide average of 0.82 firefighters per 1,000 residents.⁷

Average Response Times

FFD has identified a target response time that is in line with the NFPA 1710 standards. NFPA standards dictate the first firefighting company should arrive within 4 minutes, while an effective firefighting force (EFF) or a commercial EFF should arrive within 8 minutes 90 percent of the time. An EFF for a residential fire consists of 15 firefighters and a commercial EFF consists of 21 firefighters on

⁵ City of Fresno. 2021. Adopted Fiscal Year 2022 Budget. Website: <https://www.fresno.gov/finance/wp-content/uploads/sites/11/2021/10/FY2022AdoptedBudgetLINKS.pdf>. Accessed June 15, 2022.

⁶ International Association of Fire Fighters (IAFF). NFPA Standard 1710 Organization and Deployment of Fire Suppression Operations, EMS and Special Operations in Career Fire Departments. Website: https://www.iaff.org/wp-content/uploads/Departments/Fire_EMS_Department/30541_Summary_Sheet_NFPA_1710_standards.pdf. Accessed June 17, 2022.

⁷ Fresno Fire Department (FFD). 2022. Fresno Fire Department 2022 Annual Report. Website: <https://www.fresno.gov/fire/wp-content/uploads/sites/6/2023/01/2022-Annual-Report.pdf>. Accessed March 22, 2023.

scene. According to the FFD 2021 Annual Report the Department met the 4-minute response time 72 percent of the time, while an EFF was assembled within 8 minutes 87 percent of the time, and commercial EFF 88 percent of the time, falling short of target response times.⁸

Impact Fees

Development within the City creates demands on existing municipal facilities, improvements, and services. Thus, various development fees and charges are imposed on new development in order to mitigate such demands. Payment of those fees and charges is required at various stages of the development process. The Public Facilities Financing Plan describes potential funding mechanisms for infrastructure needed to support the proposed project. Payment of applicable development fees or other funding mechanisms would offset the construction and acquisition costs of required fire protection and emergency medical facility improvements or additional personnel required to meet acceptable service levels. The funding mechanisms ultimately adopted by the City Council would also support fire and emergency medical services by ensuring that roadways meet City standards and support FFD vehicles.

Police Protection

City of Fresno Police Department

The Fresno Police Department (FPD), headquartered at 2323 Mariposa Street, provides police services including uniformed patrol response to emergency and non-emergency calls, crime prevention, pro-active tactical crime enforcement, and investigation of crimes. The FPD operates four divisions: the Patrol Division, the Investigation Division, the Support Division, and the Administration Division. The FPD operates out of five policing districts: the Southwest Policing District, the Central Policing District, the Southeast Policing District, the Northeast Policing District, and the Northwest policing district. The Plan Area lies partially within the Southeast Policing District which is located to the east of North 1st Street and South Railroad Avenue, and to the south of Ashlan Avenue and East Clinton Avenue to the southern city limits. The Southwest Policing District is located South of East McKinley Avenue and west of South 1st Street and South Railroad Avenue; the Central Police District is located between North 1st Street to the east, the Union Pacific railway tracks to the west, East Ashland Avenue to the north, and East Belmont Avenue to the south; the Northeast Policing District is located between North Blackstone Avenue to the west and North Willow Avenue to the east, and is bounded by East McKinley Avenue to the South and the San Joaquin River to the north; and the Northwest Policing District is located to the west of North Blackstone Avenue, and bounded by the San Joaquin River to the north, East Ashlan Avenue and West McKinley Avenue to the south, and extends to the western city limits.⁹

Other Law Enforcement Agencies

The Fresno County Sheriff's Office (Sheriff's Office) provides law enforcement and crime prevention services to the unincorporated areas of metropolitan Fresno County. This includes rural outlying areas to the east, south, and west of the City. The Sheriff's Office service area is divided into four Patrol Areas, with Patrol Area 2 serving the communities of Calwa, Malaga, Mayfair, Sunnyside, Fig Garden,

⁸ Fresno Fire Department (FFD). 2021. Fresno Fire Department 2021 Annual Report. Website: <https://www.fresno.gov/fire/wp-content/uploads/sites/6/2022/02/2021-Annual-Report-final.pdf>. Accessed June 17, 2022.

⁹ City of Fresno. Website: <https://www.fresno.gov/police/policing-district-locator/>. Accessed June 8, 2022

and Tarpey.¹⁰ Patrol Area 2 is bounded by the San Joaquin River to the north and American Avenue to the south, and from Chatea Fresno east to McCall Avenue, which borders the Plan Area's eastern-most boundary. The California Highway Patrol, Fresno State Police Department, and the Fresno City College Department also provide law enforcement services in the Fresno area.

Stations

The FPD operates one police station in each of its five policing districts in addition to the Fresno Police Headquarters, for a total of six police stations within the City. The Plan Area lies partially within the Southeast Policing District, with officers operating out of the Southeast Policing District station located at 1617 South Cedar Avenue. A full list of the City's police stations is below:

- Fresno Police Headquarters: 2323 Mariposa Street, Fresno, CA
- Southwest Policing District: 1211 Fresno Street, Fresno, CA
- Southeast Policing District: 1617 South Cedar Avenue, Fresno, CA
- Northeast Policing District: 1450 East Teague Avenue, Fresno, CA
- Northwest Policing District: 3781 North Hughes Avenue, Fresno, CA
- Central Policing District: 3502 North Blackstone Avenue, Fresno, CA

The Plan Area lies within the Fresno County Sheriff's Office Patrol Area 2, with a Sheriff's Office located 1.97 miles to the northwest of the Plan Area at 5717 East Shields Avenue, Fresno, CA.¹¹

Equipment, Staffing, and Calls for Service

The City has a target staffing ratio of 1.5 unrestricted officers per 1,000 City residents.¹² According to the Fiscal Year 2022 Adopted Budget, the Department's sworn staff will increase to 850, the highest in FPD history.¹³ The FPD provides additional services and staffs special units including Explosive Ordinance Disposal Unit, Internal Affairs, K9 Unit, Mounted Patrol, Skywatch, Specialized Weapons and Tactics (SWAT), and the Records Bureau. According to the 2020 Fresno Police Department Annual Report, FPD fielded over 350,000 calls for service, with an average of over 959 calls for service per day.¹⁴

Impact Fees

As previously discussed, development within the City creates demands on existing municipal facilities, improvements, and services. Thus, various development fees and charges are imposed on new development in order to mitigate such demands. Payment of those fees and charges is required at various stages of the development process. The Public Facilities Financing Plan describes potential funding mechanisms for infrastructure needed to support the proposed project. Payment of applicable development fees or other funding mechanisms would offset the construction and

¹⁰ Fresno County Sheriff's Office. Website: <https://www.fresnosherriff.org/units/enforcement/patrol-areas/area-2.html>. Accessed June 9, 2022.

¹¹ Fresno County Sheriff's Office. Fresno County Sheriff's Office Area 2. Website: <https://www.fresnosherriff.org/images/PatrolAreas/A2Cities.pdf>. Accessed January 17, 2022.

¹² National Police Funding Database. 2024. Fresno, CA. Website: <https://policefundingdatabase.org/explore-the-database/locations/california/fresno/>. Accessed December 4, 2024.

¹³ City of Fresno. 2022. Adopted Fiscal Year 2022 Budget, Page B-139. Website: <https://www.fresno.gov/finance/wp-content/uploads/sites/11/2021/10/FY2022AdoptedBudgetLINKS.pdf>. Accessed June 17, 2022.

¹⁴ Fresno Police Department (FPD). 2020. Fresno Police Department 2020 Annual Report. Website: <https://www.fresno.gov/police/wp-content/uploads/sites/5/2021/05/28947-2020AnnualReport-FINAL-2.pdf>. Accessed June 17, 2022.

acquisition costs of required police protection facility improvements or additional personnel required to meet acceptable service levels. The funding mechanisms ultimately adopted by the City Council would also support police services by ensuring that police facilities meet City standards.

Schools

The City is served by multiple school districts: Fresno Unified School District (FUSD), Clovis Unified School District (CUSD), Central Unified School District (Central USD), Sanger Unified School District (Sanger USD), and Washington Unified School District. The majority of the City is served by the FUSD, while the CUSD serves areas of the City north of Herndon Avenue and east of the Fresno Yosemite International Airport, the Central USD serves north and northwestern portions of the City, the Sanger USD serves the southeastern area of the City, and a large portion of the southwest portion of the City is served by the Washington USD.

School District and Schools in the Area

The Plan Area would be served by both the Sanger USD and CUSD, both of which provide kindergarten through twelfth grade classes. The Plan Area encompasses two elementary schools: Lone Star Elementary in the Sanger USD and Young Elementary in the CUSD.^{15, 16} Table 3.15-2 below features all existing schools within the Plan Area.

Table 3.15-2: School Districts and Schools in the Project Area

School District	School Name	Address
Sanger Unified School District	Lone Star Elementary School	2617 South Fowler Avenue, Fresno, CA
Clovis Unified School District	Young Elementary School	3140 North Locan Avenue, Fresno, CA

Sources: SchoolSite Locator. 2022; Clovis Unified School District (CUSD). 2022.

Enrollment

Table 3.15-3 below shows the enrollment by grade for the 2021-2022 school year in the Sanger USD and in the CUSD as a whole as well as in Lone Star Elementary School and Young Elementary School.¹⁷

¹⁵ SchoolSite Locator. 2022. Sanger USD. Website: <https://portal.schoolsitelocator.com/apps/ssl/?districtcode=79027>. Accessed June 17, 2022.

¹⁶ Clovis Unified School District (CUSD). 2022. Clovis Unified Boundary Map. Website: <https://maps.cusd.com/address/>. Accessed June 17, 2022.

¹⁷ California Department of Education. 2021. DataQuest, 2021-2022 Enrollment by Grade. Website: <https://dq.cde.ca.gov/dataquest>. Accessed June 9, 2022.

Table 3.15-3: School District and School Enrollment by Grade

School District	School	Elementary School (Grades K–6)	Middle School (Grades 7–8)	High School (Grades 9–12)	Total Enrollment
Sanger Unified School District	Lone Star Elementary	569	0	0	569
	District Total	7,119	1,989	3,965	13,087
Clovis Unified School District	Young Elementary School	639	0	0	639
	District Total	22,118	6,704	13,835	42,669
Source: California Department of Education. 2021.					

Student Generation Rates

As discussed in Section 2.0, Project Description, and Section 3.14, Population and Housing, the existing population in Plan Area is estimated to contain approximately 2,171 persons. According to the General Plan, the Plan Area is expected to be built out with approximately 15,000 housing units by 2035, resulting in a total population of 44,850. The Plan Area’s total housing capacity is 45,000 housing units, resulting in a total population of approximately 134,550. To determine the number of students that would be generated by the proposed project, the State provides a housing unit yield of 0.7 students per unit.¹⁸ Therefore, the proposed project would be expected to generate approximately 10,500 students by 2035 and could generate up to 31,500 students at total buildout.

School Impact Fees

As further discussed in Section 3.15.3, Regulatory Framework, future development under the proposed project would be required to pay applicable development fees, which would offset the cost of developing new or expanded school facilities or additional staff in order to meet acceptable service levels.

Parks

The Parks Master Plan was updated in 2017 pursuant to General Plan Parks, Open Space and Schools Element Policy POSS-1-b. As shown in Table 3.15-4 the updated General Plan classifies six different park types based on acreage and service area: pocket park, neighborhood park, community park, regional park, special use park/facility, and greenbelts/trails.¹⁹ The City also has joint-use agreements that allow select school and basin sites to be used for recreation by the public during certain times, including Fresno Metropolitan Flood Control District (FMFCD) stormwater retention and detention basins.

¹⁸ Office of Public School Construction. 2019. School Facility Program Handbook.

¹⁹ City of Fresno. 2017. Parks Master Plan. Chapter 3 Park System Overview, Pages 65-69. Website: https://www.fresno.gov/wp-content/themes/cityoffresno/_largefiles/FresnoPMPFinalDocumentwithAppA051818_S.pdf. Accessed December 13, 2024.

Table 3.15-4: City of Fresno Park Types

Park Type	Typical Size	Service Area
Pocket Park	0.5 to 2 acres	Up to 0.5 mile
Neighborhood Park	2.01 to 10 acres	Up to 1 mile radius
Community Park	10.01 to 40 acres	Up to 4 mile radius
Regional Park	More than 40 acres ¹	100,000 residents
Greenbelts/Trail	Varies	Entire City
Notes: ¹ Parks that are less than 40 acres may be considered a Regional Park if a unique recreational opportunity, such as river access, is provided. Source: City of Fresno. 2017.		

Existing Parks and Recreation Facilities

The existing Fresno Park System consists of more than 80 parks including pocket parks, public grounds, neighborhood parks, community parks, regional parks, and special use facilities. The Plan Area does not encompass any parks. The nearest park to the Plan Area, Al Radka Park, is located 1.25 miles to the west of the Plan Area boundary.

Service Standards

The General Plan has established service standards by park type. These standards are 3 acres per 1,000 residents for pocket parks, neighborhood parks, and community parks; and 2 acres per 1,000 residents for regional parks, open space/natural areas, and special use parks. As Fresno's population increases the amount of park land must increase to maintain the established Level of Service (LOS) standards. Fresno must increase its park lands by 1,095 acres in order to meet the LOS goals for current population, and by 1,751 acres to meet the needs of the projected 2035 population.²⁰

Impact Fees

As previously discussed, development within the City creates demands on existing municipal facilities, improvements, and services. Thus, various development fees and charges are imposed on new development in order to mitigate such demands. Payment of those fees and charges is required at various stages of the development process. As previously discussed, future development under the proposed project would be required to pay applicable development fees, which would offset the cost of developing new or expanded park facilities.

Other Public Facilities

Libraries

The Fresno County Library System provides collections and services via 39 library branches and its Central Resource Library. The Fresno County Public Library is part of the San Joaquin Valley Library

²⁰ City of Fresno. 2017. Fresno Parks Master Plan, Introduction, Page 11 Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2018/05/FresnoPMPFinalDocumentwithAppA051818.pdf>. Accessed June 17, 2022.

System (SJVLS), a library consortium of 10 public library jurisdictions across Fresno, Kern, Kings, Madera, Mariposa, Merced, and Tulare counties.^{21,22,23}

- Woodward Park Regional Library, 994 East Perrin Avenue, Fresno, CA
- Pinedale Branch Library, 7170 North San Pablo Avenue, Pinedale, CA
- Clovis Regional Library, 1155 5th Street, Clovis, CA
- Politi Branch Library, 5771 North 1st Street, Fresno, CA
- Betty Rodriguez Regional Library, 3040 North Cedar Avenue, Fresno, CA
- Sunnyside Regional Library, 5566 East Kings Canyon Road, Fresno, CA
- Mosqueda Branch Library, 4670 East Butler Avenue, Fresno, CA
- Talking Book Library for the Blind, 770 North San Pablo Avenue, Fresno, CA
- Fig Garden Regional Library, 3071 West Bullard Avenue, Fresno, CA
- Gillis Branch Library, 629 West Dakota Avenue, Fresno, CA
- Central Library, 106 East Shields Avenue, Fresno, CA
- West Fresno Branch Library, 188 East California Avenue, Fresno, CA

Library Location

There are no libraries located within the Plan Area. The nearest libraries to the Plan Area are the Sunnyside Regional Library and the Sanger Branch Library. The Sunnyside Regional Library is located at 5566 East Kings Canyon Road in the Sunnyside Square Shopping Center approximately 2.01 miles west of the Plan Area boundary. The Sanger Branch Library is located at 1812 7th Street, 3.60 miles to the east of the Plan Area boundary.

Hospitals

As is shown in Table 3.15-5 there are eight hospitals located within the City, with three providing emergency medical services and one providing Level 1 trauma services. Community Regional Medical Center, located in Downtown Fresno, provides the most comprehensive medical services, including the metropolitan area's only Level 1 trauma center.^{24, 25}

Table 3.15-5: City of Fresno Hospitals

Hospital Name	Address (Fresno)	Services	Capacity
Fresno Surgical Hospital	6125 North Fresno Street	General Acute Care Hospital	27 Beds
Fresno Heart and Surgical Hospital	15 East Audubon Drive	General Acute Care Hospital, Cardiac, Vascular, and Bariatric Surgical Services	57 Beds
St. Agnes Medical Center	1303 East Herndon Avenue	General Acute Care Hospital, Basic Emergency Services	436 Beds

²¹ Fresno County Public Library. Website: <http://www.fresnolibrary.org/about/index.html>. Accessed June 9, 2022.;

²² San Joaquin Valley Library System. Website: <https://www.sjvls.org/about>. Accessed June 9, 2022.

²³ Fresno County Public Library. Map of Fresno Clovis Metro-Area. Website: <http://www.fresnolibrary.org/branch/metro.html>. Accessed June 9, 2022.

²⁴ The Office of Statewide Health Planning and Development. 2020. Facility Finder. Website: www.oshpd.ca.gov/facility-finder/. Accessed June 9, 2022.

²⁵ UCSF Department of Emergency Medicine, 2024. UCSF Fresno. Website: <https://emergency.ucsf.edu/ucsf-fresno#:~:text=CRMC%20is%20the%20only%20Level,county%20area%20of%20Central%20California>. Accessed December 4, 2024.

Hospital Name	Address (Fresno)	Services	Capacity
Kaiser Foundation Hospital-Fresno	7300 North Fresno Street	General Acute Care Hospital, Basic Emergency Services	169 Beds
Community Regional Medical Center	2823 Fresno Street	General Acute Care Hospital, Comprehensive Emergency Services, Neuroscience Institute, Level 3 Neonatal ICU, Level 1 Trauma and Comprehensive Burns Center	689 Beds
Community Behavioral Health Center	7171 North Cedar Avenue	Inpatient and outpatient acute psychiatric care	61 Beds
Community Subacute and Transitional Care Center	3003 North Mariposa Street	Chronic Subacute Conditions	106 Beds
San Joaquin Valley Rehabilitation Hospital	7173 North Sharon Avenue	Outpatient and Inpatient Rehabilitation Services	62 Beds

Sources: The Office of Statewide Health Planning and Development 2020. City of Fresno. 2020.

Hospital Location

There are no hospitals located within the Plan Area. The nearest hospital to the Plan Area, the Clovis Community Medical Center, lies outside of the City. Clovis Community Medical Center is located at 2755 Herndon Avenue in the City of Clovis, approximately 3.46 miles north of the Plan Area. The hospital is licensed as a General Acute Care Hospital and provides basic emergency room services with a capacity of 208 beds.

3.15.3 - Regulatory Framework

State

California Health and Safety Code

California Health and Safety Code, Sections 13100–13135, establish the following policies related to fire protection:

- 13100.1** The functions of the office of the State Fire Marshall, including CAL FIRE, shall be to foster, promote, and develop strategies to protect life and property against fire and panic.
- 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

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 the 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, 2014, the State approved increasing the allowable amount of statutory school facilities fees (Level I School Fees) from \$3.20 to \$3.36 per square foot of assessable space for residential development of 500 square feet or more, and from \$0.51 to \$0.54 per square foot of chargeable covered and enclosed space for commercial/industrial development. School districts may levy higher fees if they apply to the State and meet certain conditions.

Local

Fresno General Plan

The General Plan outlines a long-range vision for the physical development of the City that reflects the community's vision to preserve the desirable qualities of the existing community while encouraging the aspirations of the community. The following objectives, policies, and programs are related to public services:

Urban Form, Land Use, and Design

Land Use

Objective LU-11 Encourage coordination with adjacent jurisdictions in providing public services, infrastructure and cooperative economic development.

Policy LU-11-c **General Plan Consistency.** Pursue coordinated planning and development project reviews with relevant federal, State, and local public agencies to ensure consistency with this General Plan

Public Utilities and Services Element

Police Protection Services

Objective PU-1 Provide the level of law enforcement and crime prevention services necessary to maintain a safe, secure, and stable urban living environment through a Police Department that is dedicated to providing professional, ethical, efficient, and innovative service with integrity, consistency and pride.

- Policy PU-1-b** **Involvement in General Plan.** Facilitate Police Department participation in the implementation of General Plan policies, including citizen participation efforts and the application of crime prevention design measures to reduce the exposure of neighborhoods to crime and to promote community security
- Facilitate Police Department communication with citizen advisory committees.
 - Refer appropriate development entitlements to the Police Department for review and comment.
- Policy PU-1-c** **Safety Considerations in Development Approval.** Continue to identify and apply appropriate safety, design and operational measures as conditions of development approval, including, but not limited to, State control measures, lighting and visibility of access points and common areas, functional and secure on-site recreational and open space improvements within residential developments, and use of State licensed, uniformed security.
- Policy PU-1-d** **New Police Station Locations.** Considerations will be given to co-locating new police station facilities with other public property including, but not limited to, schools, parks, playgrounds, and community centers to create a synergy of participation in the neighborhood with the potential result of less vandalism and promotion of a better sense of security for the citizens using these facilities.

Fire Protection Services

- Objective PU-2** Ensure that the Fire Department’s staffing and equipment resources are sufficient to meet all fire and emergency service level objectives and are provided in an efficient and cost effective manner.
- Policy PU-2-b** **Maintain Ability.** Strive to continually maintain the Fire Department’s ability to provide staffing and equipment resources to effectively prevent and mitigate emergencies in existing and new high-rise buildings and in other high-density residential and commercial development throughout the City.
- Policy PU-2-d** **Station Siting.** Use the General Plan, community plans, Specific Plans, neighborhood plans, and Concept Plans, the City’s Geographic Information Systems (GIS) database, and a fire station location program to achieve optimum siting of future fire stations.
- Policy PU-2-g** **Community Facilities District for Emergency Services.** Develop strategies on the formation of Community Facilities Districts in new Development Areas to fund emergency services.
- Objective PU-3** Enhance the level of fire protection to meet the increasing demand for services from an increasing population.

- Policy PU-3-a** **Fire Prevention Inspections.** Develop strategies to enable the performance of annual fire and life safety inspection of all industrial, commercial, institutional, and multi-family residential buildings, in accordance with nationally recognized standards for the level of service necessary for a large Metropolitan Area, including a self-certification program.
- Policy PU-3-d** **Review Development Applications.** Continue Fire Department review of development applications, provide comments and recommend conditions of approval that will ensure adequate on-site and off-site fire protection systems and features are provided.
- Policy PU-3-e** **Building Codes.** Adopt and enforce amendments to construction and fire codes, as determined appropriate, to systemically reduce the level of risk to life and property from fire, commensurate with the City's fire suppression capabilities.
- Policy PU-3-f** **Adequate Infrastructure.** Continue to pursue the provision of adequate water supplies, hydrants, and appropriate property access to allow for adequate fire suppression throughout the City.
- Policy PU-3-g** **Cost Recovery.** Continue to evaluate appropriate codes, policies, and methods to generate fees or other sources of revenue to offset the ongoing personnel and maintenance costs of providing fire prevention and response services.
- Policy PU-3-i** **New Fire Station Locations.** Consideration will be given to co-locating new Fire Station facilities with other public property including, but not limited to, police substations, schools, parks, playgrounds, and community centers to create a synergy of participation in the neighborhood with the potential result of less vandalism and promotion of a better sense of security for the citizens using these facilities.

Open Space, Schools and Public Facilities

Schools

Objective POSS-8 Work cooperatively with school districts to find the appropriate locations for schools to meet the needs of students and neighborhoods.

Policy POSS-8-b **Appropriate School Locations.** Support school locations that facilitate safe and convenient access by pedestrian and bicycle routes, are compatible with surrounding land uses, and contribute to a positive neighborhood identity and Complete Neighborhoods. Commit to the following:

- Work with representatives of public and private schools during the preparation and amendment of plans and the processing of development proposals to ensure that General Plan policies are implemented.

- Require school districts to provide necessary street improvements, pedestrian facilities, public facilities, and public services at each new school site as authorized by law.
- Continue to designate known school sites on the Land Use Diagram (Figure LU-1), and in community plans, Specific Plans, and other plans compatible with the locational criteria of each school district, and to facilitate safe and convenient walking and biking to schools in neighborhoods.
- Meet regularly with school district staff and trustees to provide ongoing communication and coordination of plans, projects, and priorities.
- Collaborate with school districts to plan and implement new school sites in a manner that supports and reinforces objectives to develop walkable Complete Neighborhoods.

Policy POSS-8-c Park and School Site Coordination. Pursue the cooperative development and use of school sites with adjacent neighborhood parks for both school activities and non-school related recreational activities.

Parks and Recreation

Objective POSS-1 Provide an expanded, high quality and diversified park system, allowing for varied recreational opportunities for the entire Fresno community.

Policy POSS-1-a Parkland Standard. Implement a standard of at least three acres of public parkland per 1,000 residents for Pocket, Neighborhood, and Community parks throughout the City, while striving for five acres per 1,000 residents for all parks throughout the City, subject to identifying additional funding for regional parks and trails.

Policy POSS-1-b Parks Implementation Planning. Conduct ongoing planning to implement park policies established in this General Plan and continue to strive for well-maintained and fully accessible playgrounds, with accessible amenities, throughout the City.

- Keep an up-to-date inventory of existing and planned parks, including locations mapped on the Parks and Open Space Diagram;
- Plan for acquiring new parkland designated in the General Plan, as shown in Figure POSS-1;
- Establish a standard protocol for working with new development to arrange for parkland acquisition and dedication;
- Establish a protocol for working with established neighborhoods to provide needed parks, including the fostering of neighborhood and district associations to help plan, acquire, improve and care for public parks, and coordinating new City service facilities to provide new open space;
- Establish detailed design, construction, and maintenance standards;
- Prepare an assessment of the recreation needs of existing and future residents;
- Create an action plan defining priorities, timeframes, and responsibilities;

- Adopt and implement a comprehensive financing strategy for land acquisition, park development, operations, and maintenance;
- Identify opportunities for using existing or planned park space as passive stormwater storage, treatment, and conservation areas that also provide scenic and/or recreational opportunities;
- Identify opportunities for siting and using existing or planned park space as passive “purple pipe” waste water storage, treatment, and conservation areas that also provide scenic and/or recreational opportunities; and
- Update the Parks Master Plan.

Policy POSS-1-c Public Input in Park Planning. Continue to provide opportunities for public participation in the planning and development of park facilities and in creation of social, cultural, and recreational activities in the community.

Policy POSS-1-d Additional Parkland in Certain Areas. Strive to obtain additional parkland of sufficient size to adequately serve underserved neighborhood areas and along BRT [Bus Rapid Transit] corridors in support of new and intense residential and mixed use infill development.

- Identify, where appropriate, joint-use opportunities in siting parks with other City service facility needs.

Policy POSS-1-e Criteria for Parks in Development Areas. Continue to use park size and service area criteria for siting new parks and planning for parks in Development Areas:

Park Type	Size Range (Acreage)	Population Served	Service Area Radius
Neighborhood	2.01 to 10	10,000–15,000	Up to 1 mile
Community	10.01 to 40	50,000–80,000	Up to 4 miles
Regional	More than 40 ^a	100,000	100,000 residents
Notes: a Or when amenities provide regional service			

Policy POSS-1-f Parks and Open Space Diagram. Require parks to be sited and sized as shown on the Parks and Open Space Diagram (Figure POSS-1) of the General Plan, subject to the following:

- All new park designations carry dual land use designations, so that if a park is not needed, private development consistent with zoning and development standards may be approved. (See Figure LU-2: Dual Designation Diagram in the Urban Form, Land Use, and Design Element).
- Revised and/or additional park sites will be identified through subsequent implementation and planning in established neighborhoods and Development Areas.

- Locations for future park sites as shown on Figure POSS-1 are schematic to the extent that park sites may be relocated as necessity and opportunity dictate, and a General Plan amendment is not required if the park continues to serve the target areas as determined by the Planning Director.
- A park may be located on any suitable land in the general vicinity of the sites depicted. However, the zoning of potential park sites must be made consistent with the General Plan.

Objective POSS-2 Ensure that adequate land, in appropriate locations, is designated and acquired for park and recreation uses in infill and growth areas.

Policy POSS-2-a Identify opportunities to site, develop and co-locate Fire and Police stations with needed parks and open space as joint-use facilities.

- Capital Improvement Plans should be updated to reflect this policy

Policy POSS-2-b **Park and Recreation Priorities.** Use the following priorities and guidelines in acquiring and developing parks and recreation facilities:

- Acquire and develop neighborhood park space in existing developed neighborhoods that are deficient of such space and in areas along BRT corridors that are designated as priorities for encouraging new mixed use transit-oriented development.
- Provide accessible recreation facilities in established neighborhoods with emphasis on those neighborhoods currently underserved by recreation facilities.
- Improve established neighborhood parks with emphasis on those neighborhoods with the greatest need.
- Acquire and develop neighborhood and community parks in new Development Areas.
- Recognize community parks as a special need in areas that lack these facilities or are planned for transit supportive urban densities, and explore all potential sources of revenue to secure and develop appropriate sites including joint-use facilities.
- Develop new special purpose parks, such as outdoor gym equipment, natural resource based trail parks, equestrian centers, dog parks, and amphitheaters, as well as alternative recreation facilities, such as community recreation centers, passive wildlife observation park, cultural heritage and diversity park, military veterans memorial park, and universal access open space park.
- Acquire and develop park and open space in established neighborhoods and Development Areas, prioritizing existing neighborhoods with the greatest deficiencies, so that all residents have access to park or open space within 0.5-mile of their residence. Develop these facilities to be fully accessible to individuals with disabilities as required by law.

- Policy POSS-2-c Review of Development Applications.** Coordinate review of all development applications (i.e., site plans, conditional use permits, and subdivision maps) in order to implement the parks and open space standards of this Plan.
- Assure the provision of adequate active and passive open spaces and facilities as appropriate within residential subdivisions through Development Code requirements for mandatory dedication and improvement of land and/or development fees.
 - Require the provision of appropriate outdoor living areas or private open space in multi-family residential developments not subject to the Subdivision Map Act.
 - Request open space easements where feasible and warranted to secure appropriate public use of sensitive areas with scenic or recreation values, and for buffering space for sensitive areas.
 - Require provision of appropriate open space areas in private projects, in the form of trails, enhanced landscaped setbacks, parks, and water features.
 - Evaluate the merits of establishing a development bonus entitlement program in which development incentives (i.e., bonus densities, bonus floor area square footage) are provided for contributions to public recreational facilities on-site or in the vicinity of the development project.
- Policy POSS-2-e Open Space Dedication for Residential Development.** Ensure new residential developments provide adequate land for parks, open space, landscaping, and trails through the dedication of land or otherwise providing for Pocket Parks, planned trails, and other recreational space, maintained by an HOA, CFD, or other such entity.
- Objective POSS-3** Ensure that park and recreational facilities make the most efficient use of land; that they are designed and managed to provide for the entire Fresno community; and that they represent positive examples of design and energy conservation.
- Policy POSS-3-a Centralized Park Locations.** Site parks central and accessible to the population served, while preserving the integrity of the surrounding neighborhood.
- Policy POSS-3-b Park Location and Walking Distance.** Site Pocket and Neighborhood Parks within a half-mile walking distance of new residential development.
- Policy POSS-3-c Link Parks with Walkways.** Link public open space to adjacent, schools, and residential uses and Activity Centers through a series of landscaped linear walkways and bikeways that enhance and encourage pedestrian use.
- Policy POSS-3-d Sidewalks to Connect Neighborhoods.** Sidewalks should be designed for internal neighborhood circulation, and to connect neighborhoods to other residential areas, parks, community trails, shopping, and major streets.

- Policy POSS-3-e Minimum Park Size for Active Recreation.** Minimize City acquisition or acceptance of dedication of park sites less than two acres in size for active recreational uses, except where maintenance costs are secured through a CFD, HOA, or other such mechanism.
- Policy POSS-3-f Park Design Guidelines.** Create, maintain, and apply park design guidelines, with provisions for appropriate amenities for each park type, which may include:
- Minimum and maximum shade.
 - Protections from shading by adjacent buildings.
 - Accessibility to persons with disabilities.
 - Street trees and landscaped median strips in adjacent arterial roads.
 - Art and points of attraction.
 - Landscape and hardscape features.
 - Street furniture, signage, and lighting.
 - Food sales and entertainment.
 - Restroom facilities play structures, and picnic shelters.
 - Landscape design synthesis with input from civil engineers and hydrologists, educators and daycare providers, fitness trainers and coaches, police officers and experts in crime prevention through environmental design, as appropriate.
 - Solar panels, new LED lighting, and water efficiency improvements. Sports field areas designed to allow periodic changes in field locations to minimize wear areas and provide sufficient fields to host regional, State, or national tournaments.
 - Using topography to create interesting and visually appealing spaces and forms.
 - Use of waterways as a key design influence, a focus of restoration, and an opportunity to provide for public enjoyment of views.
 - Reflecting the agricultural and horticultural heritage of the site or area.
 - Connecting with surrounding areas in a way that encourages expanded pedestrian activity.
 - Creating individual places within a park that respond to the needs of a broad range of park users, from youth to the elderly.
 - Creating places of delight that engage the senses.
 - Creating places that engage the mind, by treating park features as opportunities for interpretation and questioning.
 - Using sustainable design practices, and highlighting these as opportunities for learning.
- Policy POSS-3-g Park Security and Design.** Promote safety, attractiveness, and compatibility between parks and adjacent residential areas through design, maintenance, and enforcement of park regulations

- Require the installation of security lighting for parking, points of access, and building areas at all public recreation and park sites.
- Keep neighborhood eyes on parks to increase security.

Policy POSS-3-h Coordination with School Districts. Continue to coordinate with school districts to explore opportunities for joint-use of both outdoor and indoor recreation facilities, such as playgrounds, play fields, and gymnasiums, for City recreation programs.

Objective POSS-4 Pursue sufficient and dedicated funding for parks acquisition, operations, and maintenance.

Policy POSS-4-a Supplemental Revenue. Seek revenue sources to supplement General Fund support for basic park maintenance and basic recreational services.

Policy POSS-4-b Operation and Maintenance Financing. Continue to require new residential development to form lighting and landscaping maintenance districts or community facility districts or ensure other means of financing to pay for park operations and maintenance.

Policy POSS-4- Improvements in Established Neighborhoods. Seek agreements with formal neighborhood associations and institutions for improvements and ongoing maintenance of parks in established neighborhoods.

Policy POSS-4-d Maintain Adopt-A-Park Program. Continue promoting the City's Adopt-A-Park program that utilizes partnerships with local organizations to preserve, beautify and maintain Fresno's neighborhood parks.

Noise and Safety Chapter

Objective NS-6 Foster an efficient and coordinated response to emergencies and natural disasters.

Policy NS-6-f Emergency Vehicle Access. Require adequate access for emergency vehicles in all new development, including adequate widths, turning radii, hard standing areas, and vertical clearance.

Fresno Southeast Development Area Specific Plan

The Fresno SEDA Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to public services:

Urban Form

Objective UF-1 Create complete neighborhoods in the Southeast Development Area that integrate housing, business and retail amenities. Implement a Southeast Development Area plan that balances and mixes housing, jobs, commercial businesses, services, and public facilities to help meet existing thresholds for lower vehicle miles traveled, reduced air pollution, and the efficient use of groundwater resources in compliance with the Sustainable Groundwater Management Act of 2014.

Policy UF-1.5 **Public Facilities & Open Spaces.** Support the development of public infrastructure, facilities, and parks that meet the needs of Plan Area residents according to the policies and standards set in the Open Space, Schools and Public Facilities Chapter and the General Plan.

Open Space, Schools, and Public Facilities

Objective OS-2 Create and maintain an open space network that serves multiple purposes, including recreation, stormwater management, community farming, and environmental preservation.

Policy OS-2.1 **Active Open Space.** Maximize active recreational opportunities in the open space network. Active space includes playgrounds, fields, hardcourts, pools, and other facilities for sports and other physical activities.

Objective OS-3 Develop a hierarchy of parks in the SEDA that provides for a diverse range of recreation opportunities for all, and is well served by public transit, bike paths, and dedicated trails.

Policy OS-3.2 **Park Design for Safety.** Promote the use of Crime Prevention Through Environmental Design (CPTED) principles in park design. CPTED principles include natural surveillance, access control, territorial reinforcement and space management in promoting safety and discouraging crime. Please see the Fresno Parks Master Plan, Chapter 5, Design Guidelines for Safety starting on page 141 and Chapter 9, Goal 5—Secure on page 268.

Policy OS-3.3 **Park Design for Accessibility.** Maximize the use of parks and trails by people of all ages and levels of physical ability, following Americans with Disabilities Act (ADA) design standards and the Title 24 California Building Code requirements as applicable.

Policy OS-3.4 **Concurrent Development.** Park acquisition and development should be concurrent with residential development.

Policy OS-3.5 **Participatory Park Planning.** To the greatest extent possible, engage the public in the parks planning process to ensure that parks respond to community needs.

- Objective OS-4** Develop and maintain a greenway trail network connected to the SEDA circulation network that maximizes daily travel and recreation opportunities by linking Town Centers to destinations within and beyond the Southeast Development Area.
- Policy OS-4.1** **Multiuse Trails.** Establish a planned network of multiuse greenway trails. These trails will serve bicyclists, pedestrians, and, where appropriate, equestrians. Cross-sections and width requirements will be provided for specific conditions—including canal side, open space, streetside, and farm side trails.
- Policy OS-4.2** **Regional Trails.** Coordinate regional trail planning with Fresno County, the City of Clovis, and other jurisdictions as appropriate. The City of Fresno Active Transportation Plan calls for Class I Bicycle Paths along each canal in the SEDA. A regional Rails to Trails Bicycle Path is planned to run parallel to California Avenue should existing railroad lines be vacated.
- Policy OS-4.3** **Trail Standards.** Trails shall be designed with features that encourage use, provide safety, and are resource-efficient. Trail standards shall address shading, low-water landscaping, fencing, paving and surface materials, lighting, seating and furniture, ADA access requirements, signage, and intersection treatments.
- Policy OS-4.4** **Trail Segments.** Trail segments will not be constructed until all necessary property or easements are acquired for an entire segment.
- Policy OS-4.5** **SEDA Trails Master Plan.** Prior to the design and construction of the SEDA trail system, a SEDA Trails Master Plan will need to be completed that would define the final location and alignment of trails.
- Policy OS-4.6** **Trail Security.** Trails will be designed with privacy and security in mind for adjacent property owners.
- Objective OS-5** Promote the preservation of sensitive natural environments.
- Policy OS-5.1** **Environmentally Sensitive Design.** Design parks and open space areas to respect unique natural features.
- Objective OS-6** Ensure that all park, trail, and recreational facilities make the most efficient use of energy, water, and other natural resources.
- Policy OS-6.1** **Green Building.** As important civic structures, park buildings shall conform to green building standards for energy and water efficiency.
- Policy OS-6.3** **Renewable Energy Systems.** Explore developing renewable energy systems to provide power to park facilities.

Objective OS-7 Collaborate with school districts and local agencies to develop schools and other public facilities that meet the Southeast Development Area’s goals for community, fiscal, and environmental sustainability.

Policy OS-7.1 School District Coordination Taskforce and Joint Committee. The City of Fresno will work with the Clovis Unified and Sanger Unified school districts to establish specific locations for high schools and middle schools. This Plan will build on the SEDA Plan to identify specific locations for major school facilities, and will coordinate all major open space, trail, and infrastructure systems with this effort. The City and school districts will also work together closely in all high, middle, and elementary school siting and facilities planning processes to ensure that school site, size, and design decisions respond optimally to community needs. The City of Fresno will:

- Work with the Clovis and Sanger school districts to formalize the collaboration process for school siting and facilities planning.
- Ensure that developers’ contributions align with the SEDA standards for community-oriented schools, as described in this element and as further established through City-school district coordination.

Policy OS-7.2 Joint Use of School and Community Facilities. Pursue agreements to share facilities between schools and other community-serving institutions. Since the provision of shared facilities affects the siting, size, and design of schools, joint-use arrangements should be considered early in the facilities planning process.

- Create a master joint-use agreement that establishes the parameters for shared use between the City of Fresno/Fresno PARCS [Parks After School, Recreation and Community Services] and school districts. Thereafter, create site-specific cooperative agreements for each facility.
- Establish joint-use agreements with schools to make school grounds (playfields and outdoor recreation areas) available for community use during non-school hours.
- Pursue partnerships among school districts, governmental agencies, higher education, and/or nonprofit organizations to fund and develop joint-use facilities with schools, such as multipurpose rooms, gymnasiums, child care facilities, elder care facilities, adult education facilities, libraries, teacher education facilities, and schoolyard community gardens.

Policy OS-7.3 Location of Civic Facilities. Civic facilities should be located in proximity to parks and schools, even if facilities are not shared.

Objective OS-8 Integrate educational facilities into the urban fabric of centers and communities, where they will be served by public transit, walk and bike routes, and dedicated trails. Encouraging walk, bike, and transit travel through school location and

design minimizes Vehicle Miles Traveled (VMT), reduces transportation household costs and helps to mitigate air quality impacts and greenhouse gas emissions.

Policy OS-8.1 **Location and Accessibility.** Educational facilities will be sited in proximity to homes, transit, and civic amenities to promote walk, transit, and bike trips.

1. **Elementary Schools:** Elementary schools anchor Neighborhood Town Centers and can also be located in or adjacent to Community Town Centers. All new homes in the Southeast Development Area should be located within 0.25 to 0.5 mile (5- and 10-minute walking distances) of the entrance to an elementary school. Elementary schools must be accessible by transit and safe pedestrian and bicycle routes.
2. **Middle Schools:** Middle schools are located within, or in close proximity to, Regional and Community Town Centers. The SEDA Plan places middle schools within roughly two miles of most homes. Middle schools should be linked to the dedicated trail network, as well as local bike, pedestrian, and transit routes.
3. **High Schools:** High schools are located within, or in close proximity to, the Regional and Community Town Centers. The SEDA Plan places high schools within roughly two miles of most homes. High schools must be linked to the dedicated trail network, as well as local bike and pedestrian routes. High schools should be located along connector streets and be served by local transit. Middle and high schools share the same standards for accessibility.
4. **Other Educational Facilities:** Accessibility by transit and non-auto travel options is important for all educational facilities, from early childhood to adult education, and including public and private schools. These facilities should be located in or adjacent to Mixed-Use Districts, with access to transit and local bike and pedestrian routes, and the dedicated trail network, if possible.

Policy OS-8.2 **Safe Access.** Create safe environments on streets adjacent to schools to promote walk, bike, and transit travel.

- Where warranted, streets shall feature pedestrian crossing lights.
- Traffic calming features shall be installed in collaboration with the City of Fresno Public Works Department Streets Division.
- Safe Routes to Schools program development is encouraged. Please see www.saferoutesinfo.org for more information.
- **Decrease Distance and Increase Safe Travel to Schools:** Far fewer children walk and bike to school today than in generations past. A majority of parents cited distance from school, followed by traffic safety concerns, as the primary reason their children did not walk. The SEDA plan seeks to get more children walking and biking again by centrally locating schools where they can be easily reached by safe walk, bike, and transit routes.

With elementary schools located within a half-mile walking or biking distance from all homes, and middle and high schools located on transit lines and trail corridors, all students in the SEDA will have a wide array of travel options. Enabling children to take alternative modes of transportation not only reduces congestion, emissions, and pollution, but increases children's levels of physical activity and reduces their dependence on parents for car trips.

Policy OS-8.3

Design and Orientation. School environments should be designed to respond to the needs of students, educators, and the broader community. Within the SEDA, the character and orientation of school facilities should be compatible with the centers or districts in which they are located.

School districts have the authority to determine the size, design, and orientation of schools, in compliance with State standards. The criteria noted here are based on existing school buildings and best practice recommendations.

- **Site size:** Schools can be developed within a range of sizes; the optimum size should be determined on a case-by-case basis. Key factors in the site selection process include:
 - Community setting
 - Projected enrollment
 - Educational program needs
 - Provision of joint-use facilities
- **Building Size and Form:** School districts should explore innovative models for community-oriented school design. To ensure that facilities respond to community needs, school districts are encouraged to plan facilities and improvements in collaboration with the City of Fresno and with the participation of stakeholders throughout the community.

State standards dictate square footage requirements based on area per pupil. School districts are encouraged to use participatory planning to base facilities design on an accurate projection of needs. With respect to form, schools are encouraged to consider these features:

- Compact building design, including multistory buildings, to reduce footprint
- Clustered buildings
- Orientation of main buildings toward the street, with minimal setbacks
- Orientation of main campus entrance toward the street, rather than a parking lot or drop-off zone
- Parking lots oriented away from, rather than along, the street to prevent parking from dominating the interface between the school and the street
- Bike parking

- **Parking:** Schools should provide minimum amounts of parking as prescribed by State standards to reduce campus footprints and discourage driving.
- **Adjacency Issues:** School grounds should not be bordered by backyard fences.
- **Design Features:** Schools should incorporate design features that foster a strong sense of place.

Objective OS-11 Provide the necessary levels of police and fire services in accordance with the City of Fresno General Plan.

Policy OS-11.1 Provision of Police Services. Provide police services in the SEDA in accordance with the policies of the City of Fresno General Plan. If deemed necessary, the City of Fresno Planning and Development Department, through coordination with public safety agencies, can make adjustments to these policies.

Policy OS-11.2 Provision of Fire Services. Provide fire services in the SEDA in accordance with the policies of the City of Fresno General Plan. If deemed necessary, the City of Fresno Planning and Development Department, through coordination with public safety agencies, can make adjustments to these policies.

Policy OS-11.3 Coordination with Police and Fire Departments. The City of Fresno Planning and Development Department shall work with the Police and Fire departments as appropriate to promote safe environments throughout the SEDA and ensure that services can be provided in a manner that is sensitive and responsive to the needs of the community. Coordination may address:

- Evaluation of design features for safety and crime prevention
- Siting of police and fire substations
- Facilitation of citizen involvement processes

Community Farming Element

Objective CF-2 Create a long-term transition zone between urban uses in the City of Fresno and agricultural land in Fresno County. Buffering urban and adjoining agricultural land uses reduce conflicts that can arise due to noise, pollution, or traffic.

Policy CF-2.2 Passive Recreation. Encourage the creation of regional trails and open spaces in Rural Cluster Districts that connect urban uses to agricultural uses with trails for pedestrians, bicyclists, and equestrians.

What is the role of rural cluster development?

A transitional buffer. Urban areas and large agricultural operations cannot always sit side-by-side. Noise, dust, and pesticides from farms can pose health concerns for residents, while farmers need space to move machinery and goods. Rural

clusters along the eastern edge of SEDA form a transition between the urban area and the agricultural lands beyond.

An attractive residential option. Rural clusters offer a rural lifestyle within an environmentally responsible land use framework that promotes active farming and open space preservation.

A means to preserve land. Rural cluster lands can be used for organic small-scale farming, equestrian activities, or other uses compatible with the nearby homes. The vast majority of the land is preserved as viable agricultural land or open space.

Greenhouse Gas Reduction and Conservation

Objective RC-4 Ensure that there will be no adverse effects on regional groundwater levels by minimizing groundwater extraction and replenishing groundwater used to serve the Southeast Development Area. Maximize multiple uses of open space by encouraging new recharge facilities to be accessible to the public.

Policy RC-4.4 Support recreation opportunities with a range of parks and multiuse trails by establishing joint-use agreements with Fresno Metropolitan Flood Control District to allow access to storm drainage/recharge basins for recreational use, when appropriate (see the Open Space, Schools and Public Facilities Chapter).

Measure B

Measure B is a one-eighth of 1 percent sales tax intended to provide funds for the improvement of library services throughout Fresno County. Voters passed Measure B in November 1998 and again in 2004. As of June 2007, Measure B had provided more than \$76 million in funds to provide more library hours, more library materials, and more library services for Fresno County residents. Measure B has also contributed to new building and renovation projects in Kerman, Caruthers, Laton, Fowler, Orange Cove, Tranquility, Mendota, and the Woodward Park area. The Fresno County Measure B library tax has been extended for 16 years until 2029.

3.15.4 - Methodology

This analysis identifies potential impacts to fire protection, police protection, schools, libraries, other public facilities, parks, and recreational facilities based on development anticipated from the proposed project (collectively, the General Plan Update, Zoning Code Amendments, and Climate Action Plan). Impacts to public services, parks, and recreational facilities were assessed using the significance criteria established by the California Environmental Quality Act (CEQA) Guidelines, as well as State, and local plans, regulations, and ordinances.

3.15.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in the CEQA Guidelines Appendix G Environmental Checklist as thresholds to determine whether impacts to public services and utilities are significant environmental effects.

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts to resources are significant. These questions reflect the input of planning and environmental professionals at the Governor’s Office of Planning and Research and the California Natural Resources Agency, based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. Accordingly, the City has derived its significance criteria, based in part on the questions posed in Appendix G. These significance criteria are as follows:

The proposed project 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?

3.15.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Fire Protection

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.
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Impact Analysis

As described above, the FFD has a below average emergency response level when compared with other metropolitan cities of about the same size. As of 2022, Fresno employed 0.62 firefighters per 1,000 residents, lower than the Statewide average of 0.82 firefighters per 1,000 residents.²⁶ NFPA standards dictate the first firefighting company should arrive within 4 minutes, while an effective EFF or a commercial EFF should arrive within 8 minutes 90 percent of the time. An EFF for a residential fire consists of 15 firefighters and a commercial EFF consists of 21 firefighters on scene. According to the FFD 2021 Annual Report the FFD met the 4-minute response time 72 percent of the time, while

²⁶ Fresno Fire Department (FFD). 2022. Fresno Fire Department 2022 Annual Report. Website: <https://www.fresno.gov/fire/wp-content/uploads/sites/6/2023/01/2022-Annual-Report.pdf>. Accessed March 22, 2023.

an EFF was assembled within 8 minutes 87 percent of the time, and commercial EFF 88 percent of the time, falling short of target response times.

Implementation of the proposed project would intensify residential, mixed use, and employment land uses within the Plan Area. As discussed in Section 2.0, *Project Description*, and Section 3.14, *Population and Housing*, the existing population in the Plan Area is estimated to contain approximately 2,171 persons. According to the General Plan, the Plan Area is expected to be built out with approximately 15,000 housing units by 2035, resulting in a total population of 44,850. The Plan Area's total housing capacity is 45,000 housing units, resulting in a total population of up to approximately 134,550 persons. This population potential for the Plan Area is within the population growth anticipated by the General Plan.

Implementation of the proposed project would result in an increased demand for fire protection services. The Specific Plan includes a number of proposed policies related to fire protection, including Policy OS-11.2 which requires that fire services are provided in the Plan Area in accordance with the General Plan; and Policy OS-11.3 which requires that the City of Fresno Planning and Development Department work with the Fire Department as appropriate to promote safe environments throughout the Plan Area and ensure that services can be provided in a manner that is sensitive and responsive to the needs of the community. Coordination with the FFD would address design features for safety, siting of fire stations, and facilitation of citizen involvement processes. Implementation of the proposed Specific Plan policies would ensure that fire protection services are expanded to meet the needs of the intensified development and population increase in the Plan Area. Additionally, future development within the Plan Area would be required to comply with development fees or other funding mechanisms adopted for the proposed project in order to mitigate the impacts on fire protection facilities caused by future development within the City. Payment of the applicable development fees would offset the construction and acquisition costs of required fire facility improvements.

The project-specific environmental impacts of constructing new or expanded fire protection facilities to support the growth anticipated under the proposed project cannot be determined at this time because the site-specific locations and designs of future new or expanded facilities are not known. However, fire protection facilities are allowed within the Community Center, Neighborhood Center, and Institutional land uses as shown in the proposed land use map (Chapter 2, Project Description, Exhibit 2-2). It can be expected that construction and operation of future new or expanded fire protection facilities would have similar impacts as would construction and operation of other types of new development under the proposed project. As the City proceeds with the construction of new or expanded fire protection facilities, those projects will be reviewed by the City for compliance with the objectives and policies of the General Plan, the Specific Plan, the Municipal Code, and the mitigation measures referenced in other sections of this Recirculated Draft PEIR. Therefore, the physical effects on the environment from the construction of new or expanded fire protection facilities would be less than significant.

Furthermore, as the City receives development applications for subsequent development under the proposed project, those applications will be reviewed by the City for compliance with the policies and objectives of the General Plan to ensure that fire protection services keep pace with new

development. In addition, the Municipal Code, which implements the City’s General Plan would be reviewed when development applications are received. Therefore, future development under the proposed project would not result in significant adverse effects related to fire protection services and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Police Protection

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.
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Impact Analysis

The City has a target staffing ratio of 1.5 unrestricted officers per 1,000 City residents. According to the Fiscal Year 2022 Adopted Budget, the FPD’s sworn staff will increase to 850, the highest in FPD history.

Implementation of the proposed project would intensify residential, mixed use, and employment land uses within the Plan Area following adoption of the SEDA Specific Plan. As previously discussed, the existing population in Plan Area is estimated to contain approximately 2,171 persons. The Plan Area is expected to be built out with approximately 15,000 housing units by 2035, resulting in a total population of 44,850. The Plan Area’s total housing capacity is 45,000 housing units, which would result in a total population of up to approximately 134,550 persons, an increase of approximately 132,379 persons. This population potential for the Plan Area is within the population growth anticipated by the General Plan.

Implementation of the proposed project would result in an increased demand for police protection services. As discussed above, the full buildout of the Plan Area would result in a population increase of up to approximately 132,379 persons. Using the current City staffing goal, at full buildout of the proposed project, approximately 265 additional officers would be required to police services to meet their goal of two officers per 1,000 residents.

The Specific Plan includes proposed policies related to police protection, including Policy OS-11.1 which requires that police services are provided in the Plan Area in accordance with the policies of the General Plan; and Policy OS-11.3 which requires that the City’s Planning and Development Department work with the Police Department as appropriate to promote safe environments throughout the Plan Area and ensure that services can be provided in a manner that is sensitive and responsive to the needs of the community. Coordination with FPD would address design features for

safety and crime prevention, siting of police stations, and facilitation of citizen involvement processes. Implementation of these proposed Specific Plan policies would ensure that police services are expanded to meet the needs of the intensified development and population increase in the Plan Area. Additionally, future development within the Plan Area would be required to comply with development fees or other funding mechanisms adopted for the proposed project in order to mitigate the impacts on police protection facilities caused by future development within the City. Payment of the applicable development fees would offset the construction and acquisition costs of required police facility improvements.

The project-specific environmental impacts of constructing new or expanded police facilities to support the growth anticipated under the proposed project cannot be determined at this time because the site-specific locations and designs of future new or expanded facilities are not known. However, police facilities are allowed within the Community Center, Neighborhood Center, and Institutional land uses as shown in the proposed land use map (Exhibit 2-2). It can be expected that construction and operation of future new or expanded police facilities would have similar impacts as would construction and operation of other types of new development under the proposed project. As the City proceeds with the construction of new or expanded police facilities, those projects will be reviewed by the City for compliance with the objectives and policies of the General Plan, the proposed Specific Plan, the Municipal Code, and the mitigation measures referenced in other sections of this Recirculated Draft PEIR. Therefore, the physical effects on the environment from the construction of new or expanded police facilities would be less than significant.

Furthermore, as the City receives development applications for subsequent development under the proposed project, those applications will be reviewed by the City for compliance with the policies and objectives of the General Plan to ensure that police services keep pace with new development. In addition, the Municipal Code, which implements the General Plan would be reviewed when development applications are received. Therefore, future development under the proposed project would not result in significant adverse effects related to police services and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Schools

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, response times or other performance objectives for schools.
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Impact Analysis

Implementation of the proposed project would intensify residential, mixed use, and employment land uses within the Plan Area. As described above, the Plan Area is expected to be built out with approximately 15,000 housing units by 2035, resulting in a total population of 44,850. The Plan Area's total housing capacity is 45,000 housing units, resulting in a total population of up to approximately 134,550 persons. To determine the number of students that would be generated by the proposed project, the State of California provides a housing unit yield of 0.7 students per unit.²⁷ Therefore, the Plan Area would be expected to contain approximately 10,500 student by 2035 and contain up to approximately 31,500 new students at total buildout.²⁸ This would create significantly more demand for school services within the Plan Area.

The Specific Plan includes a number of policies that related to school facilities. For example, Policy UF-1.5 requires the construction of public infrastructure facilities that meet the needs of the Plan Area residents according to the policies and standards set in the Open Space, Schools and Public Facilities Chapter and the General Plan. Policy OS-7.1 requires that the City work with the Clovis Unified and Sanger Unified school districts to establish specific locations for high schools and middle schools. The City and school districts will work together to site all new schools and facilities to ensure that the school sites, sizes, and designs meet community needs. This policy also requires the Clovis and Sanger school districts to formalize the collaboration process for school siting and facilities planning. It also ensures that developers' contributions align with the SEDA standards for community-oriented schools, as described in Open Space, Schools, and Public Facilities, and as further established through City-school district coordination. Policy OS-8.1 requires that educational facilities are sited in proximity to homes, transit, and civic amenities to promote walk, transit, and bike trips. This would reduce environmental impacts related to emissions from transportation. This policy includes specific guidelines for the siting of elementary schools, middle schools, high schools, and other educational facilities. Finally, Policy OS-8.3 outlines design guidelines for schools. Implementation of these proposed Specific Plan policies would ensure that schools meet the needs of the intensified development and population increase in the Plan Area. Additionally, future development within the Plan Area would be required to comply with applicable school development fees in order to mitigate the impacts on school facilities caused by future development within the City. Payment of applicable development fees would offset the construction and acquisition costs of required school facility improvements and additional staff to meet acceptable service levels.

The project-specific environmental impacts of constructing new or expanded school facilities to support the growth anticipated under the proposed project cannot be determined at this time because the site-specific locations and designs of future new or expanded facilities are not known. However, school facilities are allowed within the Neighborhood Center and Institutional land uses as shown in the proposed land use map (Exhibit 2-2). It can be expected that construction and operation of future new or expanded school facilities would have similar impacts as would construction and operation of other types of new development under the proposed project. As the Clovis Unified and Sanger Unified school districts proceed with the construction of new or expanded school facilities, those projects will be reviewed by the City for compliance with applicable objectives

²⁷ Office of Public School Construction. 2019. School Facility Program Handbook.

²⁸ 45,000 housing units * 0.7 students per housing unit = ~31,500

and policies of the General Plan, the proposed Specific Plan, the Municipal Code, and the mitigation measures for the proposed project. referenced in other sections of this Recirculated Draft PEIR. Therefore, the physical effects on the environment from the construction of new or expanded school facilities would be less than significant.

Furthermore, as the City receives development applications for subsequent development under the proposed project, those applications will be reviewed by the City for compliance with the policies and objectives of the General Plan to ensure that school services keep pace with new development. In addition, the Municipal Code, which implements the General Plan would be reviewed when development applications are received. Therefore, future development under the proposed project would not result in significant adverse effects related to school services and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Parks

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, response times or other performance objectives for parks.
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Impact Analysis

The General Plan has established service standards by park type. These standards are 3 acres per 1,000 residents for pocket parks, neighborhood parks, and community parks and 2 acres per 1,000 residents for regional parks, open space/natural areas, and special use parks.

As the City's population increases, the amount of park land must increase to maintain the established LOS standards. The City must increase its park lands by 1,095 acres in order to meet the LOS goals for current population, and by 1,751 acres to meet the needs of the projected 2035 population.²⁹

Implementation of the proposed project would intensify residential, mixed use, and employment land uses within the Plan Area. As described in Section 3.14 Population and Housing, the proposed project could result in a population increase of up to 132,379 residents, as the total Plan Area capacity would be approximately 134,550 persons. As such, there would be a corresponding increase in population and an increased demand for park facilities. However, the proposed project would

²⁹ City of Fresno. 2017. Fresno Parks Master Plan. Website: https://www.fresno.gov/wp-content/themes/cityoffresno/_largefiles/FresnoPMPFinalDocumentwithAppA051818_S.pdf. Accessed December 4, 2024.

meet the General Plan standard of 3 acres of public parkland per 1,000 residents through policies that would encourage new park facilities.

The proposed project's open space system would provide open spaces and parks for active and passive recreation. The proposed project would include corridors for trails and paths that connect many areas of the Plan Area, which would provide recreational opportunities for residents, employees, customers, and visitors. Neighborhood Town Centers would provide for nearly all homes to be located within walking distance of recreation areas.

Development under the proposed project would be required to comply with General Plan objectives and policies related to park facilities. Future development under the proposed project would be required to comply with General Plan Policy POSS-2-c, which requires development applications in order to implement the parks and open space standard, and General Plan Policy POSS-2-e, which ensures that new residential developments provide adequate land for parks and open space.

The Specific Plan includes policies to ensure adequate park access for residents. For example, Objective OS-3 requires that parks in the SEDA are well served by public transit, bike paths, and dedicated trails. Policy OS-4 requires the development and maintenance of a greenway trail network connected to the SEDA circulation network that maximizes daily travel and recreation opportunities by linking Town Centers to destinations within and beyond the SEDA. Policy OS-4.1 require the establishment of a planned network of multiuse greenway trails to serve bicyclists, pedestrians, and, where appropriate, equestrians. Policy CF-2.2 would encourage the creation of regional trails and open spaces in Rural Cluster Districts that connect urban uses to agricultural uses with trails for pedestrians, bicyclists, and equestrians. Policy RC-4.4 would support park access with a range of parks and multiuse trails by establishing joint-use agreements with FMFCD to allow access to storm drainage/recharge basins for recreational use when appropriate. Policy OS-7.3 aims to locate civic facilities in proximity to parks.

Finally, new development that occurs under the proposed project would be required to pay applicable development fees, which would offset the construction and acquisition costs of required recreational facility improvements. This would ensure that any new development provides adequate parks that meet the citywide parks and open space standards, as defined in the General Plan. There are currently no existing parks within the Plan Area. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

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, response times or other performance objectives for other public facilities.**

Impact Analysis

There are no libraries located within the Plan Area. The nearest libraries to the Plan Area are the Sunnyside Regional Library (approximately 2.01 miles west of the Plan Area Boundary) and the Sanger Branch Library (approximately 3.60 miles to the east of the Plan Area boundary).

Implementation of the proposed project would intensify residential, mixed use, and employment land uses within the Plan Area. As described in Section 3.14 Population and Housing, the proposed project could result in a population increase of up to 132,379 residents. As such, there would be a corresponding increase in population and an increased demand for library facilities. Since 1998, the County of Fresno has expanded its library services, due in part to the success of Measure B. The Measure is a one-eighth of 1 percent sales tax, providing funds for improvement of library services throughout the County. The County has a funding resource available for facility improvements through March 2024, when Measure B is set to expire. The increase in population would create additional tax revenue to support the construction of new or expanded library facilities.

The project-specific environmental impacts of constructing new or expanded library facilities to support the growth anticipated under the proposed project cannot be determined at this time because the site-specific locations and designs of future new or expanded facilities are not known. However, library facilities are allowed within the Community Center, Neighborhood Center, and Institutional land uses as shown in the proposed land use map (Exhibit 2-2). It can be expected that construction and operation of future new or expanded library facilities would have similar impacts as would construction and operation of other types of new development under the proposed project. As new or expanded library facilities are constructed, those projects will be reviewed by the City for compliance with the objectives and policies of the General Plan, the proposed Specific Plan, the Municipal Codes, and the mitigation measures for the proposed project. Therefore, the physical effects on the environment from the construction of new or expanded library facilities would be less than significant.

Furthermore, as the City receives development applications for subsequent development those applications will be reviewed by the City for compliance with the policies and objectives of the General Plan to ensure that fire protection services keep pace with new development. In addition, the City's Municipal Code, which implements the City's General Plan would be reviewed when development applications are received. Therefore, future development under the proposed project would not result in significant adverse effects related to fire protection services and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

3.15.7 - Cumulative Impacts

The geographic scope for the analysis of cumulative impacts related to public services generally includes the Plan Area, the rest of the City, and any other communities served by FFD and FPD as well as the school districts, parks, libraries, and hospitals that would be utilized by residents of SEDA. This analysis evaluates whether impacts of the proposed project, together with impacts of cumulative development, could result in a cumulatively significant impact to public services. This analysis then considers whether the incremental contribution of impacts associated with implementation of the proposed project would be significant. Both conditions must apply for a project's cumulative effects to rise to the level of significance.

Fire Protection

The geographic scope for the analysis of cumulative impacts related to fire protection facilities includes the FFD service area. A significant cumulative environmental impact would result if cumulative growth exceeded the ability of FFD to adequately serve their service area, thereby requiring construction of new facilities or modification of existing facilities. FFD conducts a regular budgeting process where future facility and staffing needs are identified and addressed. All cumulative projects within the FFD service area would be required to comply with applicable Municipal Code, General Plan, and Specific Plan policies and provisions that address fire protection services, including payment of applicable development fees which would offset the cost of fire equipment, vehicles, and facilities to meet the broad range of needs of Fresno residents and employees. Because past and present development will comply with all ordinances and policies, and there are mechanisms in place to ensure provision of adequate service, there would be no significant cumulative condition with respect to fire protection services. Therefore, cumulative impacts would be less than significant.

Moreover, the proposed project's incremental contribution to the less than significant cumulative impacts would not be significant. As discussed under Impact PUB-1, implementation of the proposed project would not create a need for new or physically altered facilities for the FFD to provide fire protection services to its service area.

As previously discussed, development facilitated by the proposed project would be required to comply with the policies and actions in the General Plan and Specific Plan and applicable development fees, to ensure that fire protection services are adequate as future development is proposed. Therefore, impacts of the proposed project on fire protection services are not cumulatively considerable and the cumulative impact would be less than significant.

Police Protection

The geographic context for the analysis of cumulative impacts related to police protection facilities includes the FPD service area. A significant cumulative environmental impact would result if this cumulative growth exceeded the ability of the FPD to adequately serve their service area, thereby requiring construction of new facilities or modification of existing facilities. All cumulative projects within the FPD service area would be required to comply with applicable Municipal Code ordinances, General Plan and Specific Plan policies and provisions, including payment applicable development fees which would offset the cost of police equipment, vehicles, and facilities to meet the broad range of needs of Fresno residents and employees. Therefore, cumulative impacts would be less than significant.

Moreover, the proposed project's incremental contribution to the less than significant cumulative impacts would not be significant. As discussed under Impact PUB-2, implementation of the proposed project would not create a need for new or physically altered facilities for the FPD to provide police protection services to its service area.

As previously discussed, development facilitated by the proposed project would be required to comply with the policies and actions in the General Plan and Specific Plan as well as the Municipal Code, specifically police facilities fees, to ensure that police protection services are adequate as future development is proposed. Therefore, impacts of the proposed project on police protection services are not cumulatively considerable and the cumulative impact would be less than significant.

School Facilities

The geographic context for the analysis of cumulative impacts related to school facilities includes CUSD, Sanger USD, and the schools that serve the Plan Area and surrounding communities. Regional growth resulting from past, present, and reasonably foreseeable projects would result in increased demand for additional school facilities within the CUSD and Sanger USD. Schools are expected to receive development impact fees from cumulative development located outside of the Plan Area that would result in new school-aged residents that would attend CUSD and Sanger USD schools. The payment of school impact fees, per SB 50, would ensure that school facilities can accommodate future students. Therefore, cumulative impacts would be less than significant.

Moreover, the proposed project's incremental contribution to the less than significant cumulative impacts would not be significant. As discussed under Impact PUB-3, development facilitated by the proposed project would be required to pay applicable school impact fees to fully mitigate the impacts of the proposed project on school facilities. Therefore, impacts of the proposed project on school facilities are not cumulatively considerable and the cumulative impact would be less than significant.

Parks and Recreational Facilities

The geographic context for the analysis of cumulative impacts of parks and recreational facilities includes the Plan Area. A significant cumulative environmental impact would result if this cumulative growth resulted in an increase in the use of existing parks and recreational facilities, such that substantial physical deterioration of the parks or recreational facilities would occur, be accelerated,

to require the construction of new parks and recreational facilities or modification of existing parks and recreational facilities. All cumulative projects would be required to comply with the City's applicable Municipal Code ordinances, as well as General Plan and Specific Plan policies and provisions that address parks and recreational facilities, such as paying applicable development fees and maintaining adequate parkland ratios. Therefore, cumulative impacts to parks and recreational facilities would be less than significant.

Moreover, the proposed project's incremental contribution to less than significant cumulative impacts would not be significant. As discussed under Impact PUB-4, implementation of the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated. The construction or expansion of parks and other recreational facilities are not expected to result in an adverse physical effect on the environment. As such, development anticipated under the proposed project would not create substantial impacts related to parks and other recreational facilities.

Moreover, potential future impacts to parks and recreational facilities would be further reduced through the applicable development fees impact fee to ensure facilities at these locations are adequately maintained and sufficient to accommodate growth associated with cumulative development. Therefore, impacts of the proposed project on parks and other recreational facilities are not cumulatively considerable and the cumulative impact would be less than significant.

Other Public Facilities

The geographic context for analysis of cumulative impacts to other public facilities includes the SEDA Specific Plan Area. Development and growth in the Plan Area would increase demand for other public facilities. A significant cumulative environmental impact would result if cumulative growth exceeded the ability of the City to adequately serve people within their service area, thereby requiring construction of new facilities or modification of existing facilities. All cumulative projects would be required to comply with City ordinances and other policies that address other public facilities. Therefore, cumulative impacts would be less than significant.

Moreover, the proposed project's incremental contribution to the less than significant cumulative impacts would not be significant. As discussed under Impact PUB-5, would not create a need for new or physically altered other public facilities to maintain acceptable service ratios or other performance objectives. Therefore, impacts of the proposed on other public facilities are not cumulatively considerable and the cumulative impact would be less than significant.

Level of Cumulative Significance Before Mitigation

Less than significant impact.

Cumulative Mitigation Measures

None required.

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3.16 - Recreation

3.16.1 - Introduction

This section describes existing parks and recreational facilities in the region and project area as well as the relevant regulatory framework. This section also evaluates the possible impacts related to parks and recreational facilities that could result from the implementation of the proposed project. Information in this section is based on information obtained from the Fresno General Plan (General Plan) and the Fresno Southeast Development Area (SEDA) Specific Plan (Specific Plan).

Three public comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to recreation, including the following:

- Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the planning area.
- Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impact.
- Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including state and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.16.2 - Environmental Setting

Existing Parks and Recreational Facilities

The City of Fresno (City) maintains more than 1,000 acres of parks and nearly 230,000 square feet of building space dedicated to recreational/educational purposes, distributed among 115 sites. Other facilities include nine community pools, four splash parks, 518 picnic tables, 153 barbeque grills, three amphitheaters, 54 baseball/softball fields, 53 football/soccer fields, 40 basketball courts, 11 volleyball courts, 40 tennis courts, seven skate parks, and five dog parks. The park system also provides and maintains paths and trails for pedestrians and bicyclists.¹

The Plan Area does not contain any parks that are maintained by the City.² The nearest parks to the Plan Area are Al Radka Park, Centex, Rabe Park, and Sunnyside. Additionally, Fresno County Blossom Trail is located along East Jensen Avenue in the planning area. Table 3.16-1 below identifies the various parks and community facilities located nearest to the Plan Area that are maintained by the City.

1 Chinevere, Edward. Assistant Director, City of Fresno. Personal communication: telephone. June 15, 2023.

2 City of Fresno. 2022. Parks and Recreation Facilities Finder. Website:
<https://cityoffresno.maps.arcgis.com/apps/webappviewer/index.html?id=53f212b20a0f47efb6681df6c8ad2eaa>. Accessed December 6, 2024.

Table 3.16-1: Existing Pocket, Neighborhood, and Community Parks

Facility Name	Park Type	Distance to Plan Area	Amenities
Al Radka Park	Neighborhood Park	1.25 miles	Barbecues, Baseball/Softball Fields, Children's Play Area, Field Lights, Football/Soccer Field, Parking Lot, Picnic Tables, Restrooms, Shade Structures, Shaded Tot Lot
Rabe Park	Pocket Park	0.22 mile	Open Space
Centex	Pocket Park	0.35 mile	Picnic Tables
Sunnyside	Neighborhood Park	1.5 miles	Barbecues, Baseball/Softball Fields, Children's Play Area, Football/Soccer Field, Parking Lot, Picnic Tables, Restrooms

Source: City of Fresno. 2022. Parks and Recreation Facilities Finder. Website: <https://cityoffresno.maps.arcgis.com/apps/webappviewer/index.html?id=53f212b20a0f47efb6681df6c8ad2eaa>. Accessed December 6, 2024.

3.16.3 - Regulatory Framework

State

Quimby Act

The Quimby Act (California Government Code § 66477) was established by the California Legislature in 1965 to preserve open space and parkland in rapidly urbanizing areas of the State. The Quimby Act allows cities and counties to establish requirements for new development to dedicate land for parks, pay an in lieu fee, or provide a combination of the two.

The Quimby Act provides two standards for the dedication of land for use as parkland. If the existing area of parkland in a community is greater than 3 acres per 1,000 residents, then the community may require dedication based on a standard of up to 5 acres per 1,000 persons residing in the subdivision based on the current ratio of parkland per 1,000 residents. If the existing amount of parkland in a community is less than 3 acres per 1,000 residents, then the community may require dedication based on a standard of only 3 acres per 1,000 persons residing in the subdivision.

The Quimby Act requires a city or county to adopt standards for recreational facilities in its general plan to establish a parkland dedication or fee ordinance.

It should be noted that the Quimby Act applies only to the acquisition of new parkland; it does not apply to the physical development of new park facilities or associated operations and maintenance costs. Therefore, the Quimby Act effectively preserves open space needed to develop park and recreation facilities, but it does not ensure the development of the land or the provision of park and recreation services to residents. In addition, the Quimby Act applies only to residential subdivisions. Nonresidential projects could contribute to the demand for park and recreation facilities without providing land or funding for such facilities. Quimby Act fees are collected by the local agency (park district, city, or county) in which the new residential development is located.

Local

Fresno Desirable Park Facility Standard

The City provides Fresno residents with several types of parks and facilities. Parks are defined as land owned, leased, or provided to the City and used for public recreational purposes. Among these are several Fresno Metropolitan Flood Control District (FMFCD) stormwater retention and detention basins which serve as passive and active parks (from April to November). The City's General Plan defines various classes of park space and sets standards for the amount of park acreage that should be provided per thousand population. Table 3.16-2 below shows the desirable park facility standards within the City.

Table 3.16-2: Desirable Park Facility Standards

Park Type	Size Range (Acreage)	Service Area Radius
Pocket	0.5 to 2	Up to 0.5 mile
Neighborhood	2.01 to 10	Up to 1 mile
Community	10.01 to 40	Up to 4 miles
Regional	More than 40 ^a	100,00 residents
Trail/Greenway/Parkway	Varies	Entire City
Notes: ^a . Some parks with less than 40 acres may be classified as Regional if they provided a unique opportunity such as river access. Source: City of Fresno General Plan, 2014. Chapter 5, Parks and Open Space, Table 5-1.		

Park types in the General Plan are classified as follows:

- Pocket Park.** A park up to 0.5 to 2.0 acres in size and intended to serve the needs of a smaller, specific neighborhood located within a 0.5-mile radius. Pocket Parks should include amenities to draw neighbors to the park such as a tot lot, picnic bench, or shade structure. New Pocket Parks developed within new subdivisions are maintained as part of a Home Owners Association (HOA) or Community Facilities District (CFD).
- Neighborhood Park.** A park of more than 2.0 acres and up to 10 acres in size, which provides basic recreational activities for neighborhoods located generally within a 0.5-mile radius. There are two types of Neighborhood parks, active and passive. These parks contribute to neighborhood identity and accommodate a range of facilities, such as play fields and courts, children's play structures, picnic tables, and restrooms and may include a small center with a multipurpose room, but also may provide passive recreational features such as walking trails, community gardens, or nature areas.
- Community Park.** A park of more than 10 acres and up to 40 acres in size (typically at least 20 acres), which helps to define a community or district and is intended to serve the more active recreational needs of persons who live or work up to a 2- to 4-mile radius. These parks typically include facilities such as lighted sport fields and a community center building with a

gym, meeting rooms, and restrooms. Other features may include swimming pools, tennis courts, concession stands, community-defining public art, and a courtyard or plaza.

- **Regional Park.** A large park of more than 40 acres in size, which is meant to serve a large number of residents across a broad area of the City or around 100,000 residents. Regional parks typically include community park features that allow for a variety of sports and active recreation. Some are large enough to enable Fresno to host local and regional tournaments or events that bring revenue to the City and local businesses in the form of additional patrons and tax revenue generated. Regional parks also provide unique public facilities, such as the Shinzen Japanese Garden, the Chaffee Zoological Gardens, or natural areas with hiking trails, fishing opportunities, and access to the San Joaquin River. Parks that provide unique opportunities, such as river access, have been categorized as Regional Parks even though they are less than 40 acres in size.
- **Trail/Greenway/Parkway.** A network of linear open space of varying size, typically intended to accommodate walking and bicycling opportunities for leisure, exercise, and commuting purposes. These parkways typically include paved surfaces for bicyclists and walkers and, in appropriate locations, may include equestrian trails.

The current citywide standard for parks is a ratio of 3.0 acres per 1,000 residents for Pocket, Neighborhood, and Community Parks; this was established under the City's previous Urban Growth Management Program and current General Plan. The Parks Master Plan also exists to increase growth and management of Fresno's park system and was updated in 2017. The Parks Master Plan is continuing to be developed and will refine and adjust as necessary General Plan policies, figures, tables, narrative, open space land use designations, and trail alignments, including the General Plan Parks, Open Spaces, and Schools Element described below. Additionally, in 2021, Measure P was established within the Fresno Code of Ordinances to improve Fresno's existing parks and recreational areas.

Fresno General Plan

Parks, Open Space, and Schools Element

Objective POSS-1 Provide an expanded, high quality and diversified park system, allowing for varied recreational opportunities for the entire Fresno community.

Policy POSS-1-a Parkland Standard. Implement a standard of at least three acres of public parkland per 1,000 residents for Pocket, Neighborhood, and Community Parks throughout the City, while striving for five acres per 1,000 residents for all parks throughout the City, subject to identifying additional funding for regional parks and trails.

Policy POSS-1-b Parks Implementation Planning. Conduct ongoing planning to implement park policies established in this General Plan and continue to strive for well-maintained and fully accessible playgrounds, with accessible amenities, throughout the City.

- Keep an up-to-date inventory of existing and planned parks, including locations mapped on the Parks and Open Space Diagram;

- Plan for acquiring new parkland designated in the General Plan, as shown in Figure POSS-1;
- Establish a standard protocol for working with new development to arrange for parkland acquisition and dedication;
- Establish a protocol for working with established neighborhoods to provide needed parks, including the fostering of neighborhood and district associations to help plan, acquire, improve, and care for public parks, and coordinating new City service facilities to provide new open space;
- Establish detailed design, construction, and maintenance standards;
- Prepare an assessment of the recreation needs of existing and future residents;
- Create an action plan defining priorities, timeframes, and responsibilities;
- Adopt and implement a comprehensive financing strategy for land acquisition, park development, operations, and maintenance;
- Identify opportunities for using existing or planned park space as passive stormwater storage, treatment, and conservation areas that also provide scenic and/or recreational opportunities;
- Identify opportunities for siting and using existing or planned park space as passive “purple pipe” wastewater storage, treatment, and conservation areas that also provide scenic and/or recreational opportunities; and
- Update the Parks Master Plan.

Policy POSS-1-c Public Input in Park Planning. Continue to provide opportunities for public participation in the planning and development of park facilities and in the creation of social, cultural, and recreational activities in the community.

Policy POSS-1-d Additional parkland in certain areas. Strive to obtain additional parkland of sufficient size to adequately serve underserved neighborhood areas and along Bus Rapid Transit (BRT) corridors in support of new and intense residential and mixed-use infill development.

- Identify, where appropriate, joint-use opportunities in siting parks with other City service facility needs.

Policy POSS-1-e Criteria for Parks in Development Areas. Continue to use park size and service area criteria for siting new parks and planning for parks in Development Areas:

Policy POSS-1-f Parks and Open Space Diagram. Require parks to be sited and sized as shown on the Parks and Open Space Diagram (Figure POSS-1) of the General Plan, subject to the following:

- All new park designations carry dual land use designations, so that if a park is not needed, private development consistent with zoning and development standards may be approved. (See Figure LU-2: Dual Designation Diagram in the Urban Form, Land Use, and Design Element).

- Revised and/or additional park sites will be identified through subsequent implementation and planning in established neighborhoods and Development Areas.
- Locations for future park sites as shown on Figure POSS-1 are schematic to the extent that park sites may be relocated as necessity and opportunity dictate, and a General Plan amendment is not required if the park continues to serve the target areas as determined by the Planning Director.
- A park may be located on any suitable land in the general vicinity of the sites depicted. However, the zoning of potential park sites must be made consistent with the General Plan.

Policy POSS-1-g Regional Urban Forest. Maintain and implement incrementally, through new development projects, additions to Fresno’s urban forest to delineate corridors and the boundaries of urban areas and to provide tree canopy for bike lanes, sidewalks, parking lots, and trails.

Objective POSS-2 Ensure that adequate land, in appropriate locations, is designated and acquired for park and recreation uses in infill and growth areas.

Policy POSS-2-a Identify opportunities to site, develop, and co-locate Fire and Police stations with needed parks and open space as joint-use facilities.

- Capital Improvement Plans should be updated to reflect this policy.

Policy POSS-2-b Park and Recreation Priorities. Use the following priorities and guidelines in acquiring and developing parks and recreation facilities:

- Acquire and develop neighborhood park space in existing developed neighborhoods that are deficient of such space and in areas along BRT corridors that are designated as priorities for encouraging new mixed-use transit-oriented development.
- Provide accessible recreation facilities in established neighborhoods with emphasis on those neighborhoods currently underserved by recreation facilities.
- Improve established neighborhood parks with emphasis on those neighborhoods with the greatest need.
- Acquire and develop neighborhood and community parks in new Development Areas.
- Recognize community parks as a special need in areas that lack these facilities or are planned for transit supportive urban densities, and explore all potential sources of revenue to secure and develop appropriate sites including joint-use facilities.
- Develop new special purpose parks, such as outdoor gym equipment, natural resource based trail parks, equestrian centers, dog parks, and amphitheaters, as well as alternative recreation facilities, such as community recreation

centers, passive wildlife observation parks, cultural heritage and diversity parks, military veterans memorial parks, and universal access open space parks.

- Acquire and develop park and open space in established neighborhoods and Development Areas, prioritizing existing neighborhoods with the greatest deficiencies, so that all residents have access to park or open space within 0.5 mile of their residence. Develop these facilities to be fully accessible to individuals with disabilities as required by law.

Policy POSS-2-c Review of Development Applications. Coordinate review of all development applications (i.e., site plans, conditional use permits, and subdivision maps) in order to implement the parks and open space standards of this Plan.

- Assure the provision of adequate active and passive open spaces and facilities as appropriate within residential subdivisions through citywide Development Code requirements for mandatory dedication and improvement of land and/or development fees.
- Require the provision of appropriate outdoor living areas or private open space in multifamily residential developments not subject to the Subdivision Map Act.
- Request open space easements where feasible and warranted to secure appropriate public use of sensitive areas with scenic or recreation values and for buffering space for sensitive areas.
- Require provision of appropriate open space areas in private projects, in the form of trails, enhanced landscaped setbacks, parks, and water features.
- Evaluate the merits of establishing a development bonus entitlement program in which development incentives (i.e., bonus densities, bonus floor area square footage) are provided for contributions to public recreational facilities on-site or in the vicinity of the development project.

Policy POSS-2-e Open Space Dedication for Residential Development. Ensure new residential developments provide adequate land for parks, open space, landscaping, and trails through the dedication of land or otherwise providing for Pocket Parks, planned trails, and other recreational space maintained by an HOA, CFD, or other such entity.

Objective POSS-3 Ensure that park and recreational facilities make the most efficient use of land; that they are designed and managed to provide for the entire Fresno community; and that they represent positive examples of design and energy conservation.

Policy POSS-3-a Centralized Park Locations. Site parks central and accessible to the population served while preserving the integrity of the surrounding neighborhood.

Policy POSS-3-b Park Location and Walking Distance. Site Pocket and Neighborhood parks within 0.5 mile walking distance of new residential development.

- Policy POSS-3-c Link Parks with Walkways.** Link public open space to adjacent, schools, and residential uses and Activity Centers through a series of landscaped linear walkways and bikeways that enhance and encourage pedestrian use.
- Policy POSS-3-d Sidewalks to Connect Neighborhoods.** Sidewalks should be designed for internal neighborhood circulation and to connect neighborhoods to other residential areas, parks, community trails, shopping, and major streets.
- Policy POSS-3-e Minimum Park Size for Active Recreation.** Minimize City acquisition or acceptance of dedication of park sites less than two acres in size for active recreational uses, except where maintenance costs are secured through a CFD, HOA, or other such mechanism.
- Policy POSS-3-f Park Design Guidelines.** Create, maintain, and apply park design guidelines, with provisions for appropriate amenities for each park type, which may include:
- Minimum and maximum shade.
 - Protections from shading by adjacent buildings.
 - Accessibility to persons with disabilities.
 - Street trees and landscaped median strips in adjacent arterial roads.
 - Art and points of attraction.
 - Landscape and hardscape features.
 - Street furniture, signage, and lighting.
 - Food sales and entertainment.
 - Restroom facilities, play structures, and picnic shelters.
 - Landscape design synthesis with input from civil engineers and hydrologists, educators and daycare providers, fitness trainers and coaches, police officers, and experts in crime prevention through environmental design, as appropriate.
 - Solar panels, new LED lighting, and water efficiency improvements.
 - Sports field areas designed to allow periodic changes in field locations to minimize wear areas and provide sufficient fields to host regional, state, or national tournaments.
 - Using topography to create interesting and visually appealing spaces and forms.
 - Use of waterways as a key design influence, a focus of restoration, and an opportunity to provide for public enjoyment of views.
 - Reflecting the agricultural and horticultural heritage of the site or area.
 - Connecting with surrounding areas in a way that encourages expanded pedestrian activity.
 - Creating individual places within a park that respond to the needs of a broad range of park users, from youth to the elderly.
 - Creating places of delight that engage the senses.
 - Creating places that engage the mind, by treating park features as opportunities for interpretation and questioning.

- Using sustainable design practices, and highlighting these as opportunities for learning.

Policy POSS-3-g Park Security and Design. Promote safety, attractiveness, and compatibility between parks and adjacent residential areas through design, maintenance, and enforcement of park regulations.

- Require the installation of security lighting for parking, points of access, and building areas at all public recreation and park sites.
- Keep neighborhood eyes on parks to increase security.

Policy POSS-3-h Coordination with School Districts. Continue to coordinate with school districts to explore opportunities for joint-use of both outdoor and indoor recreation facilities, such as playgrounds, play fields, and gymnasiums, for City recreation programs.

Policy POSS-3-i Joint Use with Drainage Facilities. Continue to seek joint-use agreements for use of FMFCD stormwater drainage facilities.

Objective POSS-4 Pursue sufficient and dedicated funding for parks acquisition, operations, and maintenance.

Policy POSS-4-a Supplemental Revenue. Seek revenue sources to supplement General Fund support for basic park maintenance and basic recreational services.

Policy POSS-4-b Operation and Maintenance Financing. Continue to require new residential development to form lighting and landscaping maintenance districts or community facility districts or ensure other means of financing to pay for park operations and maintenance.

Policy POSS-4-c Improvements in Established Neighborhoods. Seek agreements with formal neighborhood associations and institutions for improvements and ongoing maintenance of parks in established neighborhoods.

Policy POSS-4-d Maintain Adopt-A-Park Program. Continue promoting the City's Adopt-A-Park program that utilizes partnerships with local organizations to preserve, beautify, and maintain Fresno's neighborhood parks.

Fresno Southeast Development Area Specific Plan

According to the SEDA Specific Plan, Neighborhood Town Centers would provide the majority of SEDA residents with essential walk, bike, transit, and short-drive access to civic services and amenities, including elementary schools, local parks, community gardens, and other services. Public gathering places that provide visual relief and passive recreation would be located in the mixed-use centers and should be surrounded by civic buildings and any commercial or mixed-use buildings

located in the center. The SEDA Specific Plan contains objectives and policies relevant to the provision of parks and recreation areas, which are shown below:

Urban Form

- Objective UF-1** Create complete neighborhoods in the Southeast Development Area that integrate housing, business and retail amenities. Implement a Southeast Development Area plan that balances and mixes housing, jobs, commercial businesses, services, and public facilities to help meet existing thresholds for lower vehicle miles traveled, reduced air pollution, and the efficient use of groundwater resources in compliance with the Sustainable Groundwater Management Act of 2014.
- Policy UF-1.5** **Public Facilities and Open Spaces.** Support the development of public infrastructure, facilities, and parks that meet the needs of Plan Area residents according to the policies and standards set in the Open Space, Schools, and Public Facilities Chapter and the General Plan.
- Objective UF-5** Provide a well-balanced transportation network accessible to all users.
- Policy UF-5.3** **Bicycle and Pedestrian Travel.** Promoting a network of pedestrian and bicycle routes, including dedicated trails, multipurpose paths, and priority Bicycle Boulevards throughout the Plan Area will serve work, school, and recreational trips and provide options for healthier outcomes within the community. In addition, both existing and proposed regional trails will be coordinated in tandem within this walkable and bikeable network. The Fresno General Plan Figure MT-2: Paths and Trails and the Active Transportation Plan (ATP) identify active trails.
- Policy UF-5.6** **Performance Standards & Evaluation.** Transit will be provided as demand warrants. Upon Plan, buildout or when warranted, 10-minute peak-period headways will be provided along the BRT corridor (e.g., Kings Canyon), and 15-minute peak-period headways shall be provided for high-priority transit routes (e.g., De Wolf, Clovis).
- In addition, all other transit routes in the planning area shall be operated at 30-minute headways upon Plan completion. Extended hour or late-night service shall be provided at 60-minute headways.
- Bus stop locations are generally placed at ¼ mile spacing. Bus stop placement will be prioritized at:
 - Schools and medical facilities
 - Libraries, parks, senior centers, and recreation facilities
 - Concentrated commercial areas
 - Concentrated residential and employment areas

1. **Bicycles:** A user-friendly bicycle network will be provided to welcome all riders throughout the entire Plan Area. Bicycle lanes including Class II and Class IV facilities should be provided on all Super Arterials, Arterials, and Local Streets. A Bicycle network should be designated on Neighborhood or Local Streets. Ensuring the safety of vulnerable users will be an important priority, as the Plan will seek to create a network of easy to use, lower stress amenities that provide the ability to connect riders to key destinations throughout the City, as described in the Fresno Active Transportation Plan (2017).
2. **Pedestrians:** A first-class pedestrian system shall be provided, including sidewalks on all streets, bicycle/pedestrian trails, and other design elements that prioritize safety and convenience for pedestrians, as described in the Fresno Active Transportation Plan (2017).
3. **Vehicles:** A highly connected, grid-based roadway system shall be provided for efficient vehicular travel. Please see the Streets and Circulation Standards in the Development Code and the City of Fresno's Department of Public Works Standard Drawings.

Open Space, Schools, and Public Facilities

Objective OS-1 Collaborate with local and regional agencies and organizations to create and support the elements of the SEDA open space network.

Policy OS-1.1 **Joint Use of Open Spaces.** Establish agreements to share facilities between the City of Fresno and Fresno Metropolitan Flood Control District, Fresno Irrigation District, and other local and regional agencies and organizations. At a minimum, and as early as possible with respect to development plans, the City of Fresno shall:

- Establish joint-use agreements with Clovis Unified and Sanger Unified school districts to provide shared community access to school grounds and City-owned facilities.
- Establish joint-use agreements with the Fresno Metropolitan Flood Control District to provide access to storm drainage/recharge basins for recreational use, where appropriate.
- Establish joint-use agreements with the Fresno Irrigation District to provide public access to areas adjacent to canals and creeks. These agreements should address issues associated with the provision of canal side trails, where appropriate.
- Coordinate with Fresno County and the City of Clovis to provide regional recreational opportunities where potential exists.
- Pursue joint-use and partnership opportunities with other public and private agencies to help finance, manage, or provide services within the SEDA open space system.

- Objective OS-2** Create and maintain an open space network that serves multiple purposes, including recreation, stormwater management, community farming, and environmental preservation.
- Policy OS-2.1** **Active Open Space.** Maximize active recreational opportunities in the open space network. Active space includes playgrounds, fields, hardcourts, pools, and other facilities for sports and other physical activities.
- Objective OS-4** Develop and maintain a greenway trail network connected to the SEDA circulation network that maximizes daily travel and recreation opportunities by linking Town Centers to destinations within and beyond the Southeast Development Area.
- Policy OS-4.1** **Multiuse Trails.** Establish a planned network of multiuse greenway trails. These trails will serve bicyclists, pedestrians, and, where appropriate, equestrians. Cross-sections and width requirements will be provided for specific conditions- including canal side, open space, streetside and farm side trails.
- Policy OS-4.2** **Regional Trails.** Coordinate regional trail planning with Fresno County, the City of Clovis, and other jurisdictions as appropriate. The City of Fresno Active Transportation Plan calls for Class I Bicycle Paths along each canal in the SEDA. A regional Rails to Trails Bicycle Path is planned to run parallel to California Avenue should existing railroad lines be vacated.
- Policy OS-4.3** **Trail Standards.** Trails shall be designed with features that encourage use, provide safety, and are resource efficient. Trail standards shall address shading, low-water landscaping, fencing, paving and surface materials, lighting, seating and furniture, ADA [Americans with Disabilities Act] access requirements, signage, and intersection treatments.
- Policy OS-4.4** **Trail Segments.** Trail segments will not be constructed until all necessary property or easements are acquired for an entire segment.
- Policy OS-4.5** **SEDA Trails Master Plan.** Prior to the design and construction of the SEDA trail system, a SEDA Trails Master Plan will need to be completed that would define the final location and alignment of trails.
- Policy OS-4.6** **Trail Security.** Trails will be designed with privacy and security in mind for adjacent property owners.
- Objective OS-7** Collaborate with school districts and local agencies to develop schools and other public facilities that meet the Southeast Development Area's goals for community, fiscal, and environmental sustainability.
- Policy OS-7.2** **Joint Use of School and Community Facilities.** Pursue agreements to share facilities between schools and other community-serving institutions. Since the

provision of shared facilities affects the siting, size, and design of schools, joint-use arrangements should be considered early in the facilities planning process.

- Create a master joint-use agreement that establishes the parameters for shared use between the City of Fresno/Fresno PARCS [Parks After School, Recreation and Community Services] and school districts. Thereafter, create site-specific cooperative agreements for each facility.
- Establish joint-use agreements with schools to make school grounds (playfields and outdoor recreation areas) available for community use during non-school hours.
- Pursue partnerships among school districts, governmental agencies, higher education, and/or nonprofit organizations to fund and develop joint-use facilities with schools, such as multipurpose rooms, gymnasiums, child care facilities, elder care facilities, adult education facilities, libraries, teacher education facilities, and schoolyard community gardens.

Objective OS-10 Civic facilities, such as libraries, community centers, senior centers, post offices, and other civic buildings, will be integrated into the urban fabric of centers and communities, and will be well-served by public transit, paths, and trails.

Policy OS-10.2 Availability of Civic Facilities. Civic facilities will be located in proximity to homes, transit, and safe pedestrian and bicycle routes and clustered with other facilities (such as parks) and services as appropriate. The SEDA Plan contains standards for the location of civic uses within Mixed-Use Districts and Residential Districts; please refer to the Urban Form Chapter for details on the SEDA Development Code.

All civic facilities must meet accessibility standards as established by the Americans with Disabilities Act (ADA) Standards and Title 24 California Building Code.

- **Community Recreation Centers:** All homes within the SEDA will be located within 4 miles of a community recreation center. Community recreation centers must be accessible by safe pedestrian and bicycle routes and be served by local transit.
- **Libraries:** Libraries must be accessible by safe pedestrian and bicycle routes and be served by local transit.

Community Farming and Agriculture

Objective CF-2 Create a long-term transition zone between urban uses in the City of Fresno and agricultural land in Fresno County. Buffering urban and adjoining agricultural land uses reduce conflicts that can arise due to noise, pollution, or traffic.

Policy CF-2.2 **Passive Recreation.** Encourage the creation of regional trails and open spaces in Rural Cluster Districts that connect urban uses to agricultural uses with trails for pedestrians, bicyclists, and equestrians.

- What is the role of rural cluster development?
 - **A transitional buffer.** Urban areas and large agricultural operations cannot always sit side-by-side. Noise, dust, and pesticides from farms can pose health concerns for residents, while farmers need space to move machinery and goods. Rural clusters along the eastern edge of SEDA form a transition between the urban area and the agricultural lands beyond.
 - **An attractive residential option.** Rural clusters offer a rural lifestyle within an environmentally responsible land use framework that promotes active farming and open space preservation.
 - **A means to preserve land.** Rural cluster lands can be used for organic small-scale farming, equestrian activities, or other uses compatible with the nearby homes. The vast majority of the land is preserved as viable agricultural land or open space.

Greenhouse Gas Reductions and Conservation

Objective RC-4 Ensure that there will be no adverse effects on regional groundwater levels by minimizing groundwater extraction and replenishing groundwater used to serve the Southeast Development Area. Maximize multiple uses of open space by encouraging new recharge facilities to be accessible to the public.

Policy RC-4.4 **Utilization of Recreation and Open Spaces as Groundwater Recharge Areas.** Support recreation opportunities with a range of parks and multiuse trails by establishing joint-use agreements with Fresno Metropolitan Flood Control District to allow access to storm drainage/recharge basins for recreational use, when appropriate (see the Open Space, Schools and Public Facilities Chapter).

Parks Master Plan

The Fresno Parks Master Plan was created in 2017 and articulates a vision for improving Fresno's park and open space system based on community engagement and thorough analysis.³ Through the examination of the City's General Plan parkland acreage goals, population growth, and demographic information, the provision of parks, recreational programs, and recreational amenities by neighborhoods was examined. This information was used to create a master plan that aims to improve the quality of existing parks, improve park safety, and close systematic gaps between park land and resource allocations.

Fresno Municipal Code

Section 12-4.701 of the Fresno Municipal Code (Municipal Code) discusses the park facilities required to implement the goals, objectives, and policies of the General Plan and to mitigate the

³ City of Fresno. 2017. Fresno Parks Master Plan. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/10/FinalDraftoftheFresnoParksMasterPlanwithAppendixA.pdf>. Accessed January 24, 2023.

impacts caused by future development in the City. The City Council has determined that a Park Facilities Fee is needed in order to pay for (a) land acquisition for and design, engineering, and construction of the public facilities designated in the Council resolution and reasonable costs of outside consultant studies related thereto; (b) to reimburse the City for designated public facilities construction by the City with funds (other than gifts or grants) from other sources together with accrued interest; (c) to reimburse developers who have designed and constructed designated public facilities which are oversized and supplemental size, length, or capacity; and/or (d) to pay for and/or reimburse costs of program development and ongoing administration of the Park Facilities Fee program.

3.16.4 - Methodology

FCS reviewed information about parks and recreation providers in and near the Plan Area and in the City of Fresno. The General Plan, Specific Plan, the Parks Master Plan and City websites were reviewed for relevant information.

3.16.5 - Thresholds of Significance

Recreation

The Lead Agency utilizes the criteria in the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist to determine whether impacts to recreation are significant environmental effects. Would the project:

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

3.16.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Increase Use of Parks

Impact REC-1:	The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
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Impact Analysis

The City provides various parks, trails, and community facilities throughout the City. It is estimated that the proposed project would add approximately 45,000 homes and 37,000 jobs within the nearly 9,000-acre Plan Area by the year 2050. As such, there would be a corresponding increase in population and an increased demand for parks and recreational facilities. The proposed project would meet the General Plan standard of 3 acres of neighborhood, community, and pocket parks per 1,000 residents and the General Plan standard of 2 acres of regional parks, open space/natural

areas, and special use parks/facilities per 1,000 residents through policies that would encourage new parks and recreational facilities.

The proposed project's open space system would provide open spaces and parks for active and passive recreation. The proposed project would include corridors for trails and paths that connect many areas of the Plan Area, which would provide recreational opportunities for residents, employees, customers, and visitors. Neighborhood Town Centers would provide for nearly all homes to be located within walking distance of recreation areas. Trail systems would connect regional and sub-regional destinations for bicyclists, pedestrians, and equestrians (where appropriate). Multiuse trails would be parallel to canals and other east–west open space networks within the Plan Area. There will also be a network of bicycle lanes reflective of the Fresno Active Transportation Plan (ATP). This will consist of Class I and Class II Bike Lanes and other bicycle facilities as described in the Caltrans Bikeway Classification Guide and Figure MT-2 of the Fresno City General Plan. The bicycle/pedestrian network would at least consist of on-street bike lanes (Class II facilities), and on-street bicycle facilities with a barrier between the bikeway and traffic (Class IV facilities) and sidewalks. Class I Bike/Pedestrian Paths within the Plan Area would exist along East Jensen Avenue, East Kings Canyon Road, parallel to the Fresno Canal near Olive Road, and parallel to the Gould Canal near East Clinton Avenue.

Development under the proposed project would be required to comply with General Plan objectives and policies related to parks and recreational facilities. Future development under the proposed project would be required to comply with General Plan Policy POSS-2-c, which requires review of development applications in order to implement the parks and open space standard, and General Plan Policy POSS-2-e, which ensures that new residential developments provide adequate land for parks and open space, along with other recreational space.

The Specific Plan include policies to create recreational opportunities for residents. For example, Policy OS-2.1 would maximize active recreational opportunities in the open space network. Active space includes playgrounds, fields, hardcourts, pools, and other facilities for sports and other physical activities. Policy CF-2.2 would encourage the creation of regional trails and open spaces in Rural Cluster Districts that connect urban uses to agricultural uses with trails for pedestrians, bicyclists, and equestrians. Policy RC-4.4 would support recreational opportunities with a range of parks and multiuse trails by establishing joint-use agreements with FMFCD to allow access to storm drainage/recharge basins for recreational use, when appropriate.

Finally, new development that occurs pursuant to the proposed project would be required to pay applicable development fees in order to mitigate the impacts on park facilities caused by future development in the City. This would ensure that new development provides adequate parks and recreational facilities that meet the citywide parks and open space standard of 3 acres per 1,000 residents. There are currently no existing City parks within the Plan Area. The nearest City park to the Plan Area is Melody Park located 1.6 miles from the project site. At this distance, the proposed project would not impact currently existing parks. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Recreational Facilities Physical Effect on Environment

Impact REC-2:	The proposed project could include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.
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Impact Analysis

Implementation of the proposed project is projected to generate an increase in the population, requiring the dedication of new parks and recreational facilities. As discussed in Section 3.14, *Population and Housing*, the addition of up to 45,000 new residential units could accommodate 136,800 residents by 2050.

The Plan Area does not currently contain any parkland that is maintained by the City. In order to meet the citywide parks and open space standard of 3 acres per 1,000 residents, the proposed project would require approximately 410.4 acres of parks by 2050. The proposed project would facilitate the creation of parks and recreational facilities. As discussed previously, Policy OS-2.1 would maximize active recreational opportunities in the open space network. Active space includes playgrounds, fields, hardcourts, pools, and other facilities for sports and other physical activities. Policy CF-2.2 would encourage the creation of regional trails and open spaces in Rural Cluster Districts that connect urban uses to agricultural uses with trails for pedestrians, bicyclists, and equestrians. Policy RC-4.4 would support recreational opportunities with a range of parks and multiuse trails by establishing joint-use agreements with FMFCD to allow access to storm drainage/recharge basins for recreational use, when appropriate. Furthermore, development within the Plan Area would be required pay applicable development fees to finance park facility improvements.

The population increase projected under the proposed project is within the population growth contemplated by the General Plan and would therefore have less than significant impacts related to the provision of new or altered park facilities. However, the proposed project would incorporate new zone districts and planned land use types, resulting in the need for up to 410.4 acres of additional parkland. Therefore, impacts related to the provision of parks and recreation services would require mitigation. Mitigation Measure (MM) REC-1 would require the City to monitor all residential population growth compared to development of new parklands within the Plan Area, in order to ensure compliance with the minimum ratio of 3 acres of parkland per 1,000 population. With implementation of MM REC-1, impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM REC-1 As new development occurs in the Plan Area, the City shall periodically (every 5 years) monitor residential population growth compared to development of new parklands for the purpose of evaluating the strength of this Plan to meet the ratio of 3 acres of parkland per 1,000 population. If the ratio is not met, the City shall explore additional ways to increase the amount of dedicated parkland in the Plan Area, including but not limited to designating additional lands for parkland development.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

3.16.7 - Cumulative Impacts

The geographic scope of the cumulative impact analysis for Recreation impacts is the Plan Area and portions of the City of Fresno, City of Clovis, and unincorporated Fresno County adjacent to the Plan Area. This analysis evaluates whether impacts of the Specific Plan, together with impacts of cumulative development, would result in a cumulatively significant impact with respect to lands use and planning. This analysis then considers whether incremental contribution of the impacts associated with implementation of the Specific Plan would be significant. Both conditions must apply for cumulative effects to rise to the level of significance.

As stated above, implementation of the proposed project would result in up to 45,000 new residential units, which could accommodate 136,800 residents by 2050. At full buildout, the proposed project would require approximately 410.4 acres of usable parkland to meet the citywide parks and open space standard of 3 acres per 1,000 residents. Parkland refers to Pocket, Neighborhood, and Community Parks. The Plan Area currently does not have any City-managed parkland.

The General Plan identified the need for nearly 2,313 acres of new Pocket, Neighborhood, and Community Parks by the General Plan horizon year of 2035 in the City's Sphere of Influence (SOI). As discussed above under Impact REC-2, future development under the proposed project could include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Individual development projects would be required to comply with the applicable development fees, which would allow new parks to be constructed at appropriate sites within the cumulative setting and adequately maintained. However, cumulative impacts could be significant, as the proposed project would incorporate new zone districts and planned land use types in the Plan Area, resulting in the need for up to 410.4 acres of parkland to meet the citywide parks and open space standard of 3 acres per 1,000 residents. Therefore, implementation of MM REC-1, which requires the City to monitor residential population growth compared to development of new parklands to meet the ratio of 3 acres of parkland per 1,000 population, would ensure potential impacts would be addressed and mitigated to meet the parkland requirements. Cumulative impacts would be less than significant with mitigation incorporated.

Level of Cumulative Significance Before Mitigation

Potentially significant impact.

Cumulative Mitigation Measures

Implement MM REC-1.

Level of Cumulative Significance After Mitigation

Less than significant impact with mitigation incorporated.

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3.17 - Transportation and Traffic

3.17.1 - Introduction

This section describes existing conditions related to transportation in the project area as well as the relevant regulatory framework. This section also evaluates the possible impacts related to transportation that could result from implementation of the project. Information in this section is based on the project-specific Transportation Impact Assessment (TIA) (included as Appendix H).

As further discussed in Chapter 1, Introduction, 15 public comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to the project's potential Transportation and Traffic impacts.

- Recommends that a peak-hour ramp queue is completed at each of the following State Route (SR) 180 intersections to determine potential impacts: De Wolf Avenue, Highland Avenue, and McCall Avenue.
- Requests all future development evaluate traffic safety impacts on the State Highway Systems due to new pedestrian and bicyclist needs due to the proposed project, specifically SR-180 interchanges at Fowler Avenue and Temperance Avenue and intersections at De Wolf Avenue, Highland Avenue, and McCall Avenue.
- Requests that all future development under the proposed project should conduct a Vehicle Miles Traveled (VMT) analysis and determine whether development under the proposed project would be required to pay a VMT Mitigation Impact Fee.
- Requests that all future residential development under the proposed project include affordable housing units.
- Recommends that the City establish policies for the installation of Level 2 Electric Vehicle (EV) charging for single- and multi-family residential units as well as DC Fast Charging EV charging stations for retail, commercial, park, and public facilities.
- Recommends that the Draft PEIR includes implementation guidelines for multimodal strategies, such as those that originate from Transit Oriented Development (TOD), in an effort to further reduce future projects' traffic-related impacts.
- Support of active transportation plans and smart growth efforts that aid the State's 2050 Climate goals.
- Requests early engagement on all future development under the proposed project that could affect the State right-of-way.
- Recommends that a Traffic Impact Study be prepared.
- States that any work done within the County-road right-of-way to construct a new driveway or improve an existing driveway will require an Encroachment Permit from the Road from the Fresno Department of Public Works.

- States that any grading will require either an engineered grading and drainage plan, road improvement plan, and permit or voucher and must comply with the City standards/requirements forwarded to the City of Fresno.
- Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the planning area.
- Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impact.
- Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.17.2 - Environmental Setting

Project Site

The project proposes to develop 9,000 acres of mixed-use development in the southeast corner of the City of Fresno (City). In total, there would be approximately 45,000 housing units (split between 26,000 single-family dwelling units and 19,000 multi-family dwelling units), 12,000 retail employees, 8,000 office employees, and 17,000 civic institutional employees, for a total of 37,000 employees at full buildout.

The location of the nearly 9,000-acre Plan Area is in the southeast portion of the City, in Fresno County, California. The Plan Area is bounded on the north by the Gould Canal, on the east by McCall and Highland Avenues, on the south by Jensen and North Avenues, and on the west by Locan, Temperance, and Minnewawa Avenues.

Roadway Facilities

Regional roadway facilities providing access to the proposed Southeast Development Area (SEDA) are via SR-180. Local access to the SEDA Specific Plan Area (Plan Area) is provided by various arterials and collectors. Exhibit 3.17-1 shows the proposed major street circulation network for the proposed project.

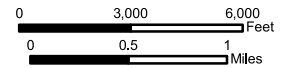
SR-180 is a six-lane, east–west State Highway in Fresno County (County) connecting Centerville to the east and Mendota to the west. It runs through the central portion of SEDA, and its speed limit is 65 miles per hour (mph). The highway merges with Kings Canyon Road when the highway portion ends near De Wolf Avenue.

Kings Canyon Road is a four-lane, east–west arterial that connects downtown Fresno to SR-180 in the east. It runs through the central portion of the SEDA development, and its speed limit is 40 mph.

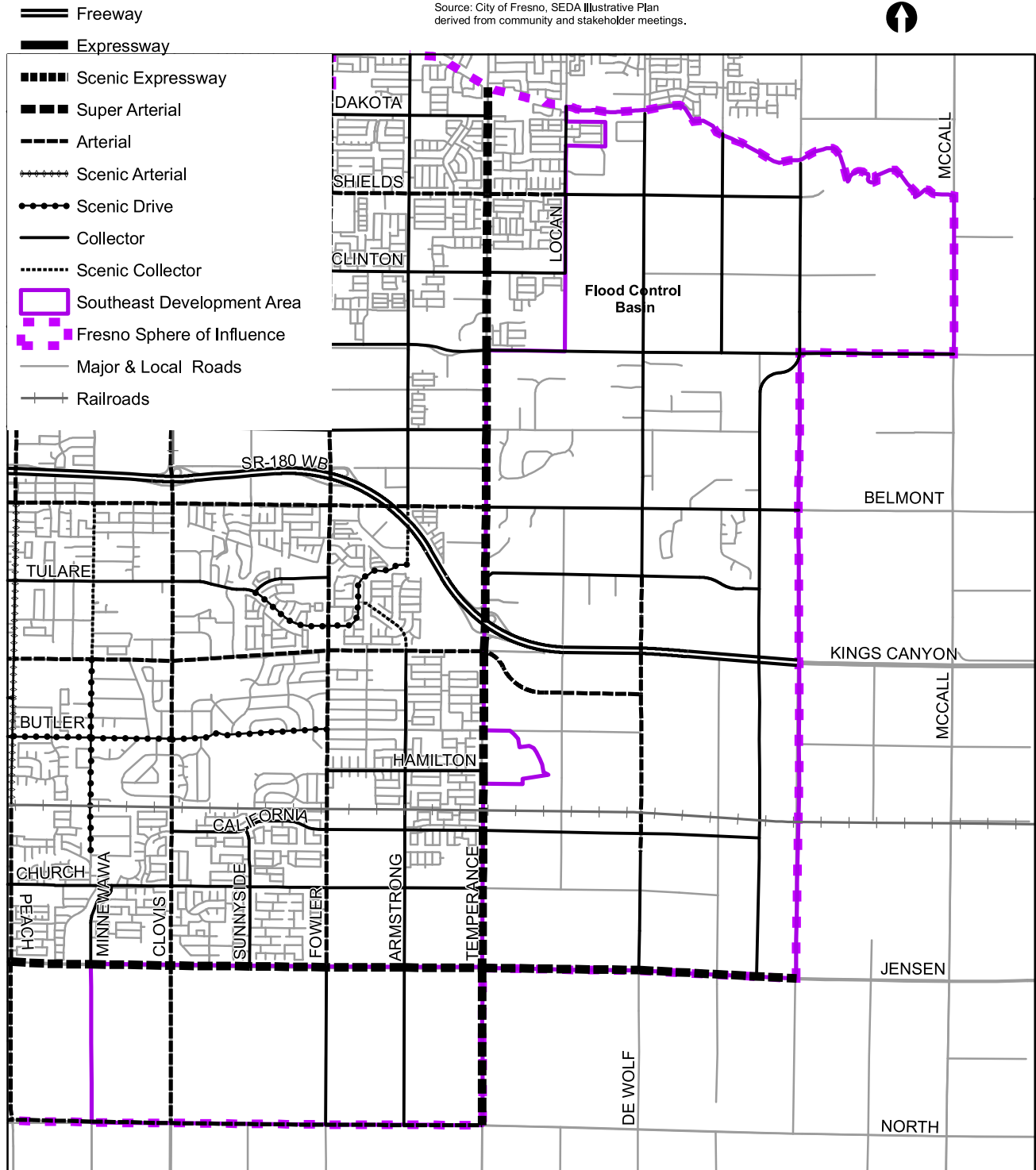
Clovis Avenue is primarily a four-lane, north–south arterial in eastern Fresno, connecting residents from Clovis to SR-99. It is primarily a six-lane arterial within the Plan Area, and surrounding land uses include single-family and commercial/retail uses. The speed limit along Clovis Avenue is 45 mph.

PROPOSED MAJOR STREET CIRCULATION

Southeast Development Area



Source: City of Fresno, SEDA Illustrative Plan derived from community and stakeholder meetings.



Source: City of Fresno

FIRSTCARBON
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Exhibit 3.17-1 Proposed Major Street Circulation Network

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Temperance Avenue is a north–south super arterial in Fresno County with an interchange at SR-180. Temperance Avenue varies from two to four lanes within the Plan Area. Land adjacent to Temperance Avenue consists of mostly rural residential land uses, and the road becomes a two-lane facility south of Hamilton Avenue. The speed limit along Temperance Avenue is 45 to 50 mph. By full buildout of the Specific Plan, Temperance Avenue is expected to be expanded to six lanes.

De Wolf Avenue is a two-lane, north–south collector in eastern Fresno County that runs perpendicular to SR-180. Land adjacent to the road consists of mostly farmland, and the road connects multiple elementary schools. It runs through the central portion of the Plan Area. The speed limit along De Wolf Avenue is 45 mph.

McCall Avenue is a two-lane, north–south collector in eastern Fresno County that intersects with SR-180. Land adjacent to the road consists of mostly farmland, and the road connects the City of Selma to Fresno. It runs through the eastern edge of the Plan Area. The speed limit along McCall Avenue is 40 mph.

Jensen Avenue is a four-lane, east–west arterial in southern Fresno that connects SR-99 with the City of Sanger. The land adjacent to Jensen Avenue consists mostly of farmland, and the road runs through the southern portion of the SEDA Specific Plan Area. The speed limit along Jensen Avenue is 55 mph from Chestnut Avenue to Clovis Avenue and 60 mph from Clovis Avenue to Fowler Avenue.

Belmont Avenue is a two-lane, east–west collector in eastern Fresno that runs north of and parallel to SR-180. The land adjacent to the road consists of mostly farmland, and the road runs through the central portion of the Plan Area. The speed limit along Belmont Avenue is 45 mph from Peach Avenue to Armstrong Avenue and 50 mph from Armstrong Avenue to Temperance Avenue.

Tulare Avenue is a two-lane, east–west collector in eastern Fresno that runs south of and parallel to SR-180. The land adjacent to the road consists of mostly suburban tracts, and the road runs through the central portion of the Plan Area. The speed limit along Tulare Avenue is 40 mph from First Street to Clovis Avenue.

Armstrong Avenue is a two-lane, north–south collector in eastern Fresno that runs parallel to Temperance Ave. The land adjacent to the road consists of mostly rural tracts, and the road runs through the western portion of the Plan Area. The speed limit along Armstrong Avenue is 45 mph.

Fowler Avenue is a two-lane, north–south collector in eastern Fresno that runs parallel to Temperance Avenue. The land adjacent to the road consists of mostly rural tracts, and the road is located at the western boundary of the Plan Area. The speed limit along Fowler Avenue is 45 mph.

North Avenue is a two-lane, east–west collector in eastern Fresno that runs parallel to Jensen Avenue. The land adjacent to the road consists of mostly rural tracts and agricultural fields, and the road runs through the southern portion of the Plan Area. The speed limit along North Avenue is 40 mph.

Pedestrian Facilities

Walkability is defined as the ability to travel easily, safely, and comfortably between various origins and destinations without having to rely on automobiles or other motorized travel. The ideal “walkable” community includes wide and shaded sidewalks, a mix of vertical and horizontal land uses abutting the street, such as residential, employment, and shopping opportunities, a mix of densities, a limited number of conflict points with vehicle traffic, easy access to transit facilities and services, and a network of pedestrian facilities. Pedestrian facilities consist of crosswalks, sidewalks, bulb-outs, pedestrian refuges, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access the destinations such as institutions, businesses, public transportation, and recreation facilities. Pedestrian facilities must be Americans with Disabilities Act (ADA)-compliant.

As this project is a Specific Plan proposed in an area that is currently rural and developed in Fresno County, there are very limited pedestrian facilities in the project vicinity.

Bicycle Facilities

The 2017 City of Fresno Active Transportation Plan (ATP) outlines policies and objectives to improve the current active transportation system that includes walking and biking. The various bicycle facilities throughout the City and its Sphere of Influence are described below.

- **Class I Shared-Use Path:** Class I bikeways are a completely separate right-of-way designed for the exclusive use of cyclists and pedestrians, with minimal crossings for motorists. These paths are often located along creeks, canals, and rail lines. Within the study area, there is Gould Canal Trail at north edge of the study area that connects to Temperance Avenue Trail and one small Class I bike path near Temperance Avenue and Shields Avenue on the northwestern portion of the Plan Area.
- **Class II Bike Lanes:** Class II Bike Lanes use special lane markings, pavement legends, and signage. Bike lanes provide designated street space for bicyclists, typically adjacent to outer vehicle travel lanes. Buffered bike lanes increase separation through painted buffers between vehicle lanes and/or parking, and green paint at conflict zones (e.g., driveways or intersections). Class II Bike Lanes are present in the study area along Belmont Avenue, portions of Shields Avenue, Locan Avenue, Butler Avenue, and South Temperance Avenue, and there are many more planned in the Fresno General Plan (General Plan) and in the Specific Plan for the project area.
- **Class III Bike Routes:** Bike routes provide enhanced mixed-traffic conditions for bicyclists through signage, shared arrow (sharrow) striping, and/or traffic calming treatments and provide continuity to a bikeway network. Bike routes are typically designated along gaps between bike trails or bike lanes or along low-volume, low-speed streets. Bicycle boulevards further enhance bike routes by encouraging slower speeds and discouraging non-local vehicle traffic using traffic diverters, chicanes, traffic circles, and speed tables. There are no existing Class III facilities in the project area, but there are many planned in the SEDA plan for the future. Sharrows shall only be implemented on designated streets where speed limits are 30 mph or less.

- **Class IV Bikeway:** Bikeways are also known as cycle tracks or separated bikeways and are set aside for the exclusive use of bicycles and physically separated from vehicle traffic. Separated bikeways were adopted by the California Department of Transportation (Caltrans) in 2015. Separation may include grade separation, flexible posts, physical barriers, or on-street parking. There are no existing Class IV facilities in the project area, but there are many planned Class IV facilities in the future within SEDA.

Transit Facilities

Fresno Area Express (FAX) is the local bus system for the City. Currently, there are no bus lines that run through the Plan Area. Bus Routes 1, 22, and 35 run on Clovis Street near the Plan Area but do not directly serve the Plan Area. There are plans to extend the Fresno bus rapid transit line (Route 1) into the Plan Area in the future and to add local transit routes to significant origins and destinations with the project area.

Preliminary Safety Assessment

The Preliminary Safety Assessment focuses on the frequency of collisions, providing analysis of their severity, type, and concentration within the Plan Area. Five years of countywide data from 2019 to 2023 was collected from the Statewide Integrated Traffic Records System (SWITRS) for assessment purposes. After thorough analysis, the Plan Area recorded a total of 629 collisions between 2019 and 2023. Please refer to Appendix H for detailed analysis.

Among all the collisions, 12 were fatal, 38 resulted in severe injuries, and 70 caused visible injuries. Additionally, 122 collisions involved complaints of pain, and the majority of collisions (387) were property damage only with no reported injuries. In terms of injury collisions, a total of 242 collisions occurred over these 5 years. Within Appendix H, the Collision Analysis depicts collisions by severity over the 5-year period. Figure 2 of the Collision Analysis (Appendix H) illustrates the collisions by severity over the 5-year period.

Overall collisions have remained relatively constant over the past 5 years, with a decline in fatalities and severe injuries in 2023. However, the total number of collisions increased from 109 (in 2019) to 148 (in 2023), reflecting a 36 percent increase. This year-on-year increase in total collisions is primarily due to the increase in Property Damage Only (PDO) collisions.

The data indicates there have been fatal collisions on Jensen Avenue, SR-180, Temperance Avenue, and McKinley Avenue. Severe injuries have also been reported on Jensen Avenue, SR-180, Clovis Avenue, Belmont Avenue, Temperance Avenue, and De Wolf Avenue. Please refer to Figures 6 and 7 of the Collision Analysis (Appendix H) for the Severity and Density Map.

The analysis also compares the number of collisions between the intersection and roadway segments. Of the total collisions, 63 percent occurred at intersections, while 37 percent took place on roadway segments. Only specific to injury collisions, approximately 70 percent occurred at intersections, and 30 percent took place on roadway segments. Furthermore, the most common violation leading to injury collisions is automobile right-of-way (35 percent), followed by violation of traffic signals and signs (17 percent). Other significant violations include improper turning, driving

under the influence, and unsafe speed. Please refer to Figures 4 and 8 of the Collision Analysis (Appendix H) for a display of the segregation of roadway and intersection collisions, as well as the top violation categories for both injury collisions and all collisions.

The most frequent collision types for injury collisions are broadside (51 percent), hitting an object (17 percent), and rear-end collisions (16 percent). A similar trend is observed for all collisions, with broadside (35 percent), hitting an object (26 percent), and rear-end collisions (21 percent) being the most common. Collisions involving hitting an object and rear-end accidents are more prevalent in all collisions compared to injury collisions. Please refer to Figure 9 of the Collision Analysis (Appendix H) for an illustration of collisions based on type of collision.

Within injury collisions, 57 percent occurred during daylight, while 32 percent took place in dark conditions on streets without streetlights. Additionally, 88 percent of injury collisions involved passenger cars and pickup trucks, while trucks accounted for 6 percent. The least number of injury collisions involved pedestrians and bicycles. Please refer to Figure 10 of the Collision Analysis (Appendix H) for an illustration of collisions based on lighting conditions.

Focusing specifically on pedestrian and bicycle collisions within the project area, a total of seven pedestrian collisions occurred, including one fatality and six resulting in severe injuries. A total of six bicycle collisions occurred, including two fatalities, one resulting in severe injuries, two resulting in visible injuries, and one resulting in PDO. The one pedestrian fatal collision analyzed was reported on Jensen Avenue between Armstrong Avenue and Temperance Avenue. The first fatal bicycle collision was reported on Jensen Avenue between Temperance Avenue and Highland Avenue, and the other fatal collision was reported on Pine Avenue between Temperance Avenue and De Wolf Avenue. Please refer to Figures 12 and 13 of the Collision Analysis (Appendix H) for illustrations of pedestrian and bicycle collisions.

In terms of safety, the City has been actively participating in improving it through various planning efforts and policy adoptions, such as Complete Streets, the ATP and the Vision Zero Action Plan. Active Transportation, which encourages non-motorized travel like walking, cycling, and using transit, helps to reduce vehicle congestion and collisions while encouraging healthier, more sustainable habits. It enhances safety by providing dedicated lanes for cyclists and pedestrians, enhancing pedestrian infrastructure such as crosswalks and islands, and reducing vehicle speeds in areas with high foot or bike traffic. Complete Streets policies make roads safer for everyone by incorporating bike lanes, wider sidewalks, bus lanes, and traffic calming measures like speed bumps or roundabouts. These policies also improve visibility for pedestrians and cyclists at intersections. Vision Zero aims to eliminate traffic fatalities and serious injuries by improving road design, addressing hazardous conditions, lowering speed limits in high-risk areas, and promoting safe driving through education and enforcement. Together, these initiatives create safer, more inclusive roadways.

The City adopted its Complete Streets Policy in 2019. The Policy's intent is to aid in the planning, design, and construction of transportation facilities that balance safety, access, and mobility for users of all abilities and ages. The Complete Streets Policy is implemented in all neighborhoods, with particular attention to areas identified as priority areas in the ATP and corridors with high collision

rates. This policy is intended to guide implementation of the complete street and multimodal objectives and policies outlined in the General Plan.

The City’s ATP was initially adopted in 2017 and is now being updated. The goal of the ATP is to enhance accessibility, safety, and connectivity for various modes such as walking, biking, and other human-powered travel modes. The ATP outlines strategies informed by the latest data and community input, aiming to increase active transportation use while supporting public health and social equity. It also aligns with broader city planning efforts in creating a more connected and vibrant community. The updated ATP is expected to be complete by late summer 2025. It will be accompanied by a Vision Zero Action Plan, which specifically focuses on safety.

The Vision Zero Action Plan is crucial to the City’s commitments to systemic change leading to the reduction or elimination of traffic fatalities and serious injuries while increasing health, safety, and equitable mobility for all. The Vision Zero Action Plan will outline a strategic planning framework to prioritize and implement safety enhancements that most effectively improve safety for all users as a step toward reducing traffic deaths. The Vision Zero Action Plan is currently underway, and its completion is expected for fall 2025.

Existing Peak-hour Traffic Volumes For Study Segments

The existing operations of the study roadway segments were evaluated for the highest 1-hour volumes during weekday morning and evening peak periods. In addition to peak-hour, daily volumes were also evaluated. Table 3.17-1, below, shows the list of segments that have count data from Fresno County.

Table 3.17-1: Existing Conditions Study Segment Traffic Volumes

Segment Name	#	AM Peak-hour	PM Peak-hour	Daily
Clovis Avenue south of American Avenue	1	1,037	1,154	14,404
De Wolf Avenue north of McKinley Avenue	2	472	326	2,766
De Wolf Avenue south of McKinley Avenue	3	282	248	1,881
De Wolf Avenue south of Clinton Avenue	4	332	228	2,271
De Wolf Avenue north of Jensen Avenue	5	187	174	1,693
De Wolf Avenue south of Jensen Avenue	6	95	120	1,139
Jensen Avenue east of Bethel Avenue	7	924	1,057	13,941
Jensen Avenue east of De Wolf Avenue	8	608	718	9,710
Jensen Avenue west of De Wolf Avenue	9	503	715	8,609
Jensen Avenue east of Temperance Avenue	10	1,015	801	9,856
Jensen Avenue west of Temperance Avenue	11	1,019	876	10,748
Kings Canyon Road east of Temperance Avenue	12	4	4	52
Locan Avenue north of Tulare Avenue	13	18	17	162
Locan Avenue south of Tulare Avenue	14	12	19	154

Segment Name	#	AM Peak-hour	PM Peak-hour	Daily
McCall Avenue north of McKinley Avenue	15	500	382	4,197
McCall Avenue north of Ashlan Avenue	16	390	439	5,167
McCall Avenue north of Belmont Avenue	17	485	518	5,730
Tulare Avenue east of Locan Avenue	18	24	27	248
Tulare Avenue west of Locan Avenue	19	38	54	595
North Street west of Temperance Avenue	20	193	216	2,442

Source: TJKM. 2025.

Existing Vehicle Miles Traveled

For existing conditions VMT, the Plan Area was overlaid on top of the Fresno County Council of Government's (Fresno COG) Activity Based Travel Demand Model (FresnoABM) loaded vehicle assignment network. Total VMT for the SEDA Specific Plan (Specific Plan) was calculated by multiplying daily volumes on the model's loaded network by distance traveled. In addition, VMT per Service Population (which is the sum of population and employees) was calculated using the FresnoABM's land use database. Table 3.17-2 summarizes the existing VMT from the FresnoABM for the Plan Area.

Table 3.17-2: Existing Conditions VMT

Category	2015 Base Year Model
SEDA VMT	330,350
Population	3,410
Employment	2,306
SEDA VMT per Service Population	57.79
Notes: SEDA = Southeast Development Area VMT = Vehicle Miles Traveled Source: TJKM. 2025.	

3.17.3 - Regulatory Framework

Federal

Applicable federal regulations pertaining to transportation are addressed in other sections of this Recirculated Draft PEIR, including Air Quality, Greenhouse Gas Emissions, and Hazardous Materials.

The federal Clean Air Act, the Infrastructure Investment and Jobs Act (IIJA), and the ADA may have some relevance or influence for individual projects or actions as part of subsequent implementation of the proposed project.

Federal Highway Administration/Federal Transit Administration

The Moving Ahead for Progress in the 21st Century Act (MAP-21) established new requirements for Metropolitan Planning Organizations (MPOs) to set Transportation Performance Management (TPM) targets and to integrate those targets and plans into their planning documents by certain dates. The Bipartisan Infrastructure Law carries forward performance-based planning requirements. Beginning in 2018, federal rules require that individual state Departments of Transportation and MPOs implement federal performance measures. In response, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) have worked with state and regional agencies to identify performance measures that meet the requirements. In California, Caltrans is directly responsible for submitting performance targets and periodic progress reports to federal agencies in a timely manner. MPOs are required to establish targets for the same performance measures on all public roads in the MPO planning area within 180 days after the State establishes each target. MPOs may elect to support the Statewide targets, establish numerical targets specific to their region, or use a combination of both approaches. Furthermore, each MPO must incorporate these short-range targets into their planning and programming processes, including the long-range plan and Transportation Improvement Program (TIP). Transportation performance measures are managed through different metrics, including safety, bridge and pavement conditions, congestion/system performance, Transit Asset Management (TAM), and transit agency safety plan. States and MPOs must integrate performance-based planning and programming into the long-range transportation plans. Regional transportation plans must include performance measures and targets, as well as a description of progress toward the targets. In addition, the TIP must provide a description on how investment in the TIP will contribute toward achieving those targets in the Regional Transportation Plan (RTP).

The FHWA defines TPM as a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals by setting and tracking the targets. TPM is systematically applied, a regular ongoing process that provides key information to help decision-makers, allowing them to understand the investment consequences across transportation assets or modes. It ensures that the targets and measures are developed in cooperative partnerships among decision-makers, stakeholders, and the traveling public, and that those targets are based on data and objective information. The Statewide and Non-metropolitan Transportation Planning and Metropolitan Planning Final Rule establishes that states and MPOs must coordinate their respective targets with each other to ensure consistency to the maximum extent practical. The individual state Departments of Transportation and MPOs are expected to use information and data generated to inform their transportation planning and programming decisions. TPM provides a means to achieve national transportation goals, increase federal aid programs' accountability and transparency, and improve project decision-making through performance-based planning and programming.

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. The department 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 Level of Service (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. Caltrans has adopted the 2020 Transportation Analysis Framework (TAF), which sets the standards criteria used to identify impacts in the project-specific TIA and this Recirculated Draft PEIR.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) sets guidelines for interactions between railroad facilities and ground transportation facilities. This includes location and type of crossing guards, design of railroad crossings, and other design criteria in and around railroad facilities. The guidelines come in the form of general orders. General Order No. 75-D: Regulations Governing Standards for Warning Devices for At-Grade Highway-Rail Crossings in the State of California provides regulations that govern the standards for warning devices for at-grade highway-rail crossings for motor vehicles, pedestrians, and/or bicycles. All warning devices shall be in substantial conformance with the applicable Standards, Guidance, and Options set forth in the Manual on Uniform Traffic Control Devices adopted by Caltrans.

Senate Bill 375

Senate Bill (SB) 375, The Sustainable Communities and Climate Protection Act of 2008 (Chapter 728, Statutes of 2008) provides guidance regarding curbing emissions from cars and light trucks. There are four major components to SB 375. First, SB 375 requires regional greenhouse gas (GHG) emissions reduction targets. These targets must be updated every 8 years in conjunction with the revision of the housing and transportation elements of local general plans. Second, MPOs are required to create a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. Third, SB 375 requires regional housing elements and transportation plans to be synchronized on 8-year schedules. Finally, MPOs must use transportation and air emissions modeling techniques that are consistent with the guidelines prepared by the California Transportation Commission (CTC).

Under SB 375, some development and transportation projects assumed as a part of the proposed project may be eligible to use a streamlined version of the environmental review process. Among other criteria, these projects must be consistent with the land use designation, density, intensity, and policies of the Fresno COG's RTP and fall within the identified criteria for development and transportation projects.

California Complete Streets Act of 2008

Assembly Bill (AB) 1358, also known as the California Complete Streets Act of 2008, requires cities and counties to include "complete street" policies in their general plans. These policies address the safe accommodation of all users, including bicyclists, pedestrians, motorists, public transit vehicles

and riders, children, the elderly, and the disabled. These policies can apply to new streets as well as the redesign of corridors. The City adopted a Complete Streets Policy (Resolution 2019-205) in 2019.

Senate Bill 743

In November 2017, the Governor’s Office of Planning and Research (OPR) released a technical advisory containing recommendations regarding the assessment of VMT, proposed thresholds of significance, and potential mitigation measures for lead agencies to use while implementing the required changes contained in SB 743. Also in November 2017, OPR released the proposed text for Section 15064.3, “Determining the Significance of Transportation Impacts,” which summarized the criteria for analyzing transportation impacts for land use projects and transportation projects and directs lead agencies to “choose the most appropriate methodology to evaluate a project’s VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure.” OPR recommends that, for most instances, a per Service Population threshold should be adopted and that a 15 percent reduction below that of existing development would be a reasonable threshold.

As noted in the OPR Guidelines, agencies are directed to choose metrics that are appropriate for their jurisdiction to evaluate the potential impacts of a project in terms of VMT. The current deadline for adopting policies to implement SB 743 was July 2020; the change to VMT was formally adopted as part of updates to the California Environmental Quality Act (CEQA) guidelines in December 2018.

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 GHG emissions, while projects that result in higher-than-average levels of vehicle travel contribute to an increasing rate of GHG emissions.

Projects that are within 0.5-mile of an existing major transit stop, which is defined as a rail transit station, ferry terminal served by bus or rail transit, or at the intersection of two or more major bus routes with service frequencies of 15-minutes or less during the morning and afternoon peak commute periods, are presumed to be less than significant if the project has the following characteristics:

- Has a floor area ratio (FAR) greater than 0.75.
- Does not include more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking).
- Is consistent with the applicable SCS (as determined by the lead agency, with input from the MPO).
- Does not replace affordable residential units with a smaller number of moderate or high-income residential units.

If a project meets the screening requirements, it is presumed to have a less than significant impact related to VMT.

Evacuation Routes Assembly Bill 747

AB 747 requires local governments, on or after January 1, 2022, to review and update their safety element to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. A county or city that has adopted a local hazard mitigation plan, emergency operations plan, or other document that fulfills commensurate goals and objectives may use that information in the safety element to comply with this section and, in that event, shall summarize and incorporate into the safety element that other plan or document.

Residential Emergency Evacuation Routes Senate Bill 99

SB 99 requires all cities and counties, upon the next revision of the housing element on or after January 1, 2020, to update the safety element to include information identifying residential developments in any hazard area identified in the safety element that do not have at least two emergency evacuation routes.

California Bicycle Transportation Act

The California Bicycle Transportation Act (1994) requires all cities and counties to have an adopted bicycle master plan to apply for the Bicycle Transportation Account (BTA) funding source. The City's existing plan, the ATP includes the City's plans for bicycle and pedestrian infrastructure.

Regional Regulations***Fresno Council of Governments***

The Fresno Council of Governments (Fresno COG) is an association of local governments in Fresno County. Fresno COG provides transportation planning and funding for the region and serves as a forum for the study and resolution of regional issues. In addition to preparing the region's long-range transportation plan, Fresno COG assists in planning for transit, bicycle networks, clean air, and airport land uses.

2022-2046 Fresno COG Regional Transportation Plan and Sustainable Communities Strategy

California's SB 375 (Steinberg, 2008) encourages coordinated transportation and land use planning to reduce greenhouse gas (GHG) emissions and requires each MPO to prepare an SCS as an integrated element of the RTP that is updated every four years. The SCS is intended to identify integrated land use and transportation strategies that lower per capita GHG emissions from cars and light-duty trucks and to foster communities that are more equitable, healthy, and sustainable.

The 2022-2046 Fresno COG RTP/SCS (Fresno COG 2022) is a federally mandated, long-range, fiscally constrained transportation plan for Fresno County. As a fiscally constrained plan, it includes only those projects which can be delivered with funds expected to be available and that will help attain and maintain air quality standards. The RTP/SCS also includes an integrated land use and transportation plan to meet greenhouse gas emission reduction targets set forth by the California Air Resources Board (ARB). The RTP/SCS comprehensively assesses all forms of transportation available in Fresno County as well as travel and goods movement needs through 2046.

The 2022-2046 RTP/SCS contains the following goals and policies relevant to the proposed project:

Goal 1	Improved mobility and accessibility for all.
Policy 1	Encourage and prioritize full, fair, and equitable participation by all affected communities in transportation decision-making and planning processes.
Policy 2	Actively work to ensure equitable distribution of the benefits and burdens of transportation projects.
Policy 3	Promote the improvement and expansion of accessible transportation options to serve the needs of all residents, especially those who have historically faced disproportionate transportation burdens.
Goal 2	Vibrant communities that are accessible by sustainable transportation options.
Policy 4	Encourage alternatives to single-occupancy vehicles that reduce Vehicle Miles Traveled (VMT) and greenhouse gas emissions.
Policy 5	Support investment in and promotion of active transportation and transit to improve public health and mobility, especially in historically underinvested areas.
Policy 6	Encourage sustainable development that focuses growth near activity centers and mobility options that achieve greater location efficiency.
Policy 7	Support local jurisdictions' efforts to minimize the loss of farmland, environmentally sensitive areas, and natural resources.
Policy 8	Support local jurisdictions' efforts to facilitate the development of diverse housing choices for all income groups.
Policy 9	Facilitate and promote interagency coordination and consistency across planning efforts.
Policy 10	Incentivize and support efforts to improve air quality and minimize pollutants from transportation.
Goal 3	A safe, well-maintained, efficient, and climate-resilient multimodal transportation network.
Policy 11	Prioritize investment in and promote multimodal safety measures to reduce traffic fatalities and incidents in the region.
Policy 12	Promote enhanced Transportation Systems Management (TSM) and Transportation Demand Management (TDM) strategies to reduce congestion and vehicle miles traveled.
Policy 13	Encourage improvements in travel connections across all modes to create an integrated, accessible, and seamless transportation network.

- Policy 14** Maximize the cost-effectiveness of transportation improvements.
- Policy 15** Encourage investments that increase the system’s resilience to extreme weather events, natural disasters, and pandemics.
- Policy 16** Preserve and maintain existing multimodal transportation assets in a state of good repair.
- Goal 4** A transportation network that supports a sustainable and vibrant economy.
- Policy 17** Support local and regional economic development by leveraging planning and transportation funds that foster public and private investment.
- Policy 18** Facilitate efficient, reliable, resilient, and sustainable goods movement.
- Goal 5** A region embracing clean transportation, technology, and innovation.
- Policy 19** Support innovative mobility solutions that are accessible, affordable, reduce greenhouse gas emissions, and improve air quality.
- Policy 20** Support efforts to expand broadband access throughout the region.

Fresno-Clovis Metropolitan Area Short Range Transit Plan

The Fiscal Year (FY) 2022-2026 is the biennial update to the operating plans and capital programs of Fresno County’s two urban transit providers—FAX and Clovis Transit. The purpose of the Fresno-Clovis Metropolitan Area (FCMA) Short Range Transit Plan (S RTP) is to promote a comprehensive, coordinated, and continuous planning process for transit service in the FCMA over a 5-year planning horizon. This short-range plan proposes specific recommendations for implementing the long-range objectives of Fresno County’s 2022-2046 Fresno COG RTP/SCS and will guide the provision of transit services in the FCMA over the next 5 years.

Local Regulations

Fresno County Regional Bicycle and Recreational Trails Master Plan (2013)

The Fresno County Regional Bicycle and Recreational Trails Master Plan provides a comprehensive long-range view for the development of an extensive regional bikeway and recreational trails network that connects cities and unincorporated areas countywide. The plan also implements the October 2000 Fresno County General Plan, according to Transportation and Circulation Element Policy TR-D.1–8, and meets the requirements of Proposition 116, the Clean Air and Transportation Improvement Act of 1990, as set forth in Section 891.2 (items a–k) of the California Streets and Highways Code. With an approved plan, Fresno County and local municipalities are eligible for non-motorized transportation infrastructure project funding, including BTA grants.

Fresno General Plan

The General Plan (2014) contains the following objectives and policies relevant to the proposed project:

Objective MT-1 Create and maintain a transportation system that is safe, efficient, provides access in an equitable manner, and optimizes travel by all modes.

Policy MT-1-a Transportation Planning Consistent with the General Plan. Continue to review local, regional and inter-regional transportation plans and capital improvement plans, and advocate for the approval and funding of State highway and rail projects, consistent with the General Plan and discourage projects inconsistent with the General Plan.

Policy MT-1-b Circulation Plan Diagram Implementation. Design and construct planned streets and highways that complement and enhance the existing network, as well as future improvements to the network consistent with the goals, objectives and policies of the General Plan, as shown on the Circulation Diagram (Figure MT-1), to ensure that each new and existing roadway continues to function as intended.

Policy MT-1-d Integrate Land Use and Transportation Planning. Plan for and maintain a coordinated and well-integrated land use pattern, local circulation network and transportation system that accommodates planned growth, reduces impacts on adjacent land uses, and preserves the integrity of established neighborhoods.

Policy MT-1-e Ensure Interconnectivity Across Land Uses. Update development standards and design guidelines applicable to public and private property to achieve Activity Centers, neighborhoods and communities which are well connected by pedestrian, bicycle, appropriate public transportation and automobile travel facilities.

Policy MT-1-f Match Travel Demand with Transportation Facilities. Designate the types and intensities of land uses at locations such that related travel demands can be accommodated by a variety of viable transportation modes and support Complete Neighborhoods while avoiding the routing of excessive or incompatible traffic through local residential streets.

Policy MT-1-g Complete Streets Concept Implementation. Provide transportation facilities based upon a Complete Streets concept that facilitates the balanced use of all viable travel modes (pedestrians, bicyclists, motor vehicle and transit users), meeting the transportation needs of all ages, income groups, and abilities and providing mobility for a variety of trip purposes, while also supporting other City goals.

Policy MT-1-j Transportation Improvements Consistent with Community Character. Prioritize transportation improvements that are consistent with the character of surrounding neighborhoods and supportive of safe, functional and Complete Neighborhoods; minimize negative impacts upon sensitive land uses such as residences, hospitals, schools, natural habitats, open space areas, and historic and cultural resources.

Policy MT-1-k Multimodal Level of Service Standards. Develop and use a tiered system of flexible, multimodal Level of Service standards for streets designated by the Circulation Diagram (Figure MT-1). Strive to accommodate a peak-hour vehicle LOS of D or

better on-street segments and at intersections, except where Policies MT-1-m through MT-1-p provide greater specificity. Establish minimum acceptable service levels for other modes and use them in the development and environmental review process.

Objective MT-2 Make efficient use of the City's existing and proposed transportation system and strive to ensure the planning and provision of adequate resources to operate and maintain it.

Policy MT-2-b Reduce Vehicle Miles Traveled and Trips. Partner with major employers and other responsible agencies, such as the San Joaquin Valley Air Pollution Control District and the Fresno Council of Governments, to implement trip reduction strategies, such as eTRIP, to reduce total vehicle miles traveled and the total number of daily and peak-hour vehicle trips, thereby making better use of the existing transportation system.

Policy MT-2-c Reduce VMT through Infill Development. Provide incentives for infill development that would provide jobs and services closer to housing and multimodal transportation corridors in order to reduce citywide Vehicle Miles Traveled (VMT).

Policy MT-2-f Optimization of Roadway Operations. Optimize roadway operations by continuing to expand the use of techniques such as the City's Intelligent Transportation System (ITS) to manage traffic signal timing coordination in order to improve traffic operations and increase traffic-carrying capacity, while reducing unnecessary congestion and decreasing air pollution emissions.

Policy MT-2-g Transportation Demand Management and Transportation System Management. Pursue implementation of Transportation Demand Management and Transportation System Management strategies to reduce peak-hour vehicle traffic and supplement the capacity of the transportation system.

Objective MT-4 Establish and maintain a continuous, safe, and easily accessible bikeways system throughout the metropolitan area to reduce vehicle use, improve air quality and the quality of life, and provide public health benefits.

Policy MT-4-b Bikeway Improvements. Establish and implement property development standards to assure that projects adjacent to designated bikeways provide adequate right-of-way and that necessary improvements are constructed to implement the planned bikeway system shown on Figure MT-2 to provide for bikeways, to the extent feasible, when existing roadways are reconstructed; and alternative bikeway alignments or routes where inadequate right-of-way is available.

Policy MT-4-c Bikeway Linkages. Provide linkages between bikeways, trails and paths, and other regional networks such as the San Joaquin River Trail and adjacent jurisdiction bicycle systems wherever possible.

Policy MT-4-h Bicycle Parking Facilities. Promote the installation of bicycle locking racks and bicycle parking facilities at public buildings, transit facilities, public and private parking lots, and recreational facilities. Establish standards for bicycle parking in the Development Code.

Policy MT-4-I Bicycling and Public Transportation. Promote the integration of bicycling with other forms of transportation, including public transit. Continue to provide bike racks or space for bicycles on FAX buses.

Objective MT-5 Establish a well-integrated network of pedestrian facilities to accommodate safe, convenient, practical, and inviting travel by walking, including for those with physical mobility and vision impairments.

Policy MT-5-a Sidewalk Development. Pursue funding and implement standards for development of sidewalks on public streets, with priority given to meeting the needs of persons with physical and vision limitations; providing safe routes to school; completing pedestrian improvements in established neighborhoods with lower vehicle ownership rates; or providing pedestrian access to public transportation routes.

Policy MT-5-b Sidewalk Requirements. Assure adequate access for pedestrians and people with disabilities in new residential developments per adopted City policies, consistent with the California Building Code and the Americans with Disabilities Act.

Policy MT-5-c New Subdivision Design. Do not approve new single-family residential subdivisions with lots that front and access on to a major roadway, unless the City Traffic Engineer determines that no other feasible alternative means of vehicle access can be provided and that sufficient design measures can be implemented, such as an on-site driveway turnaround, landscaped buffering, or an on-street parking lane to assure a desirable and enduring residential environment.

Policy MT-5-d Pedestrian Safety. Minimize vehicular and pedestrian conflicts on both major and non-roadways through implementation of traffic access design and control standards addressing street intersections, median island openings and access driveways to facilitate accessibility while reducing congestion and increasing safety. Increase safety and accessibility for pedestrians with vision disabilities through the installation of Accessible Pedestrian Signals at signalized intersections.

Objective MT-8 Provide public transit options that serve existing and future concentrations of residences, employment, recreation and civic uses and are feasible, efficient, safe, and minimize environmental impacts.

Policy MT-8-a Street Design Coordinated with Transit. Coordinate the planning, design, and construction of the major roadway network with transit operators to facilitate efficient direct transit routing throughout the Planning Area.

Policy MT-8-b Transit Serving Residential and Employment Nodes. Identify the location of current and future residential and employment concentrations and Activity Centers throughout the transit service area in order to facilitate planning and implementation of optimal transit services for these uses. Work with California State University, Fresno to determine locations within the campus core for bus stops.

Policy MT-8-c New Development Facilitating Transit. Continue to review development proposals in transportation corridors to ensure they are designed to facilitate transit. Coordinate all projects that have residential or employment densities suitable for transit services, so they are located along existing or planned transit corridors or that otherwise have the potential for transit orientation to FAX, and consider FAX's comments in decision-making.

Objective MT-9 Provide public transit opportunities to the maximum number and diversity of people practicable in balance with providing service that is high in quality, convenient, frequent, reliable, cost-effective, and financially feasible.

Policy MT-9-a Equitable Transit Provision. Provide transit that can serve all residents, including older residents and persons with disabilities.

City of Fresno Active Transportation Plan

The Fresno ATP, adopted in 2017, is a comprehensive guide outlining the vision for active transportation in the City and a roadmap for achieving that vision. The ATP envisions a complete, safe, and comfortable network of trails, sidewalks, and bikeways that serves all residents of Fresno. This plan seeks to achieve the following goals:

- Equitably improve the safety and perceived safety of walking and bicycling in Fresno
- Increase walking and bicycling trips in Fresno by creating user-friendly facilities
- Improve the geographic equity of access to walking and bicycling facilities in Fresno
- Fill key gaps in Fresno's walking and bicycling networks

To achieve these goals, the ATP proposes a long-term, comprehensive network of citywide bikeways, trails, and sidewalks that connect all parts of Fresno. Since this buildout network will take many years to complete, the ATP also identifies a priority network of connected bikeways and priority pedestrian areas to focus the City's efforts in the near-term. These priority networks provide links to key destinations, support existing and future walking and biking activity areas, and equitably serve neighborhoods throughout the City.

The recommended buildout network would add 166 miles of Class I Bike Paths, 691 miles of Class II Bike Lanes, 69 miles of Class III Bike Routes, 21 miles of Class IV Separated Bikeways, and 661 miles of sidewalks. This recommended network only includes planned Class IV facilities in locations identified in the Downtown Neighborhoods Community Plan, Fulton Corridor Specific Plan, and on Maroa Avenue and Fresno Street as alternatives to Blackstone Avenue. However, recommendations out of the Fresno Council of Governments Separated Bikeway Feasibility Study may identify

additional corridors for Class IV implementation, and some corridors planned for Class II Bike Lanes in this plan may be considered for Class IV treatment during the project development phases.

This plan updates and supersedes the existing City Bicycle, Pedestrian, and Trails Master Plan (CF BMP) that was adopted in 2010. In addition to updating elements of the CF BMP, the ATP includes more robust planning for pedestrian travel and infrastructure than presented in the CF BMP. While the CF BMP focused primarily on bicycling, the ATP includes goals and plans for all forms of active transportation by expanding analysis of pedestrian facilities. Therefore, this plan serves as the City's bicycle master plan and pedestrian master plan.

The City ATP contains the following goals relevant to transportation and circulation:

- Equitably improve the safety and perceived safety of walking and bicycling in Fresno
- Increase walking and bicycling trips in Fresno by creating user-friendly facilities
- Improve the geographic equity of access to walking and bicycling facilities in Fresno
- Fill key gaps in Fresno's walking and bicycling networks

As noted above, the City is in the process of updating its current ATP and is also planning to adopt a Vision Zero Action Plan. Please refer to Appendix H for updates on the current planning process.

Fresno Complete Streets Policy

The Fresno Complete Streets Policy's intent is to aid in the planning, design, and construction of transportation facilities that balance safety, access, and mobility for users of all abilities and ages. This Complete Streets Policy is implemented in all neighborhoods, with particular attention to areas identified as priority areas in the ATP and corridors with high collision rates. This policy is intended to guide implementation of the complete street and multimodal objectives and policies outlined in the General Plan. Prioritization of projects will be determined using the adopted Active Transportation Project Prioritization Tool. The policy requires that all development—public and private—and new construction projects within the public right-of-way, such as reconstruction/retrofit, resurfacing, repaving, restriping, and rehabilitation transportation projects, shall be planned, designed, constructed, operated, and maintained so that all modes of transportation allow all users to move safely, comfortably, conveniently, and independently.

CEQA Guidelines for Vehicle Miles Traveled

The City of Fresno adopted SB 743 guidelines in June 2020 and set significance thresholds for land use plans in Chapter 4 of the SB 743 guidance document. It shares that the ARB establishes greenhouse gas (GHG) emission targets for 18 MPOs in the State.¹ The ARB established a 13 percent GHG reduction target for Fresno County, which can be accomplished by reducing VMT by 13 percent. Therefore, the City has established a threshold for land use developments of 13 percent reduction or more than existing regional VMT per capita, indicating a significant environmental impact.

¹ Fresno Council of Governments. 2021. Fresno County SB 743 Implementation Regional Guidelines. Website: https://fresnocog.wpenginepowered.com/wp-content/uploads/2021/01/Fresno-COG-VMT-Report_01-08-2021.pdf. Accessed January 5, 2023.

Fresno Southeast Development Area Specific Plan

The SEDA Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to traffic and circulation:

Urban Form Element

Objective UF-5 Provide a well-balanced transportation network accessible to all users.

Policy UF-5.1 Circulation Plan and Street Standards. Implement a circulation plan which provides a variety of transportation options necessary to meet the needs of residents and employees within the SEDA.

In order to promote connectivity throughout the Plan Area, all SEDA streets rights-of-way shall be publically accessible and shall not include gates or access controls, except where permitted through special review by the City of Fresno.

Policy UF-5.2 Transit Service. Safe, convenient and frequent transit service will be provided to and within the SEDA via regional transit connections along Kings Canyon Boulevard alignment and potentially, along existing rail right-of-ways. Local service will be provided along primary internal circulation corridors, including Arterials and Collectors.

- **Regional transit planning:** Thoughtful transit planning must occur in order to incorporate the primary centers, particularly the Regional Town Center along Kings Canyon. A Bus Rapid Transit (BRT) extension study including planning, design, and environmental analysis should be completed to evaluate the potential costs and benefits of extending the BRT to the SEDA Plan Area.
- **Station location:** The location of transit stations and stops will better serve local community members if they are placed within or adjacent to major activity centers, schools, medical facilities, public places such as libraries, parks, senior centers, and recreation facilities, commercial uses and high-density residential and employment areas.
- **Station connectivity and accessibility:** To provide opportunities for the highest possible transit use, stations will feature a convenient and accessible path of travel and will include pedestrian and bicycle connections to the surrounding street network and transit transfer points. Bus stops and stations will be oriented toward major streets and public spaces, with primary commercial entrances opening directly toward bus stops. Important to ensuring all members within the SEDA community have access to transit opportunities, bus stops and stations will comply with the accessibility requirements of the Americans with Disabilities Act (ADA).

Policy UF-5.3 Bicycle and Pedestrian Travel. Promoting a network of pedestrian and bicycle routes, including dedicated trails, multi-purpose paths, and priority Bicycle Boulevards throughout the Plan Area will serve work, school, and recreational trips and provide options for healthier outcomes within the community. In addition, both existing and proposed regional trails will be coordinated in tandem within this walkable and bikeable network. The Fresno General Plan Figure MT-2: Paths and Trails and the Active Transportation Plan (ATP) identify active trails.

Policy UF-5.4 Safe Streets. Streets are designed for drivers, pedestrians, bicyclists and transit users within the Southeast Fresno Development Area and will enhance safety within the community. SEDA street design will reflect best practice standards as included in the City of Fresno Complete Streets Policy, adopted by the City in 2019.

Policy UF-5.5 Ranking of Travel Modes. In order to create a cohesive network between all modes of travel within the SEDA, the Plan will prioritize the following travel modes:

1. Pedestrian
2. Bicycle
3. High-capacity transit
4. Automobile

Policy UF-5.6 Performance Standards and Evaluation. Transit will be provided as demand warrants. Upon Plan, buildout or when warranted, 10-minute peak-period headways will be provided along the BRT corridor (e.g., Kings Canyon), and 15-minute peak-period headways shall be provided for high-priority transit routes (e.g., De Wolf, Clovis).

In addition, all other transit routes in the planning area shall be operated at 30-minute headways upon Plan completion. Extended hour or late-night service shall be provided at 60-minute headways.

- Bus stop locations are generally placed at ¼ mile spacing. Bus stop placement will be prioritized at:
 - Schools and medical facilities
 - Libraries, parks, senior centers, and recreation facilities
 - Concentrated commercial areas
 - Concentrated residential and employment areas
- 1. **Bicycles:** A user-friendly bicycle network will be provided to welcome all riders throughout the entire Plan Area. Bicycle lanes including Class II and Class IV facilities should be provided on all Super Arterials, Arterials, and Local Streets. A Bicycle network should be designated on Neighborhood or Local Streets. Ensuring the safety of vulnerable users will be an important priority, as the Plan will seek to create a network of easy to use, lower stress amenities that provide

the ability to connect riders to key destinations throughout the City, as described in the Fresno Active Transportation Plan (2017).

2. **Pedestrians:** A first-class pedestrian system shall be provided, including sidewalks on all streets, bicycle/pedestrian trails, and other design elements that prioritize safety and convenience for pedestrians, as described in the Fresno Active Transportation Plan (2017).
3. **Vehicles:** A highly connected, grid-based roadway system shall be provided for efficient vehicular travel. Please see the Streets and Circulation Standards in the Development Code and the City of Fresno's Department of Public Works Standard Drawings.

Policy UF-5.7 Level of Service (LOS). To promote Complete Streets and provide safe mobility for all users throughout the entire SEDA streets will be designed with no more than four through lanes and a continuous two-way left-turn lane (portions of Jensen and Temperance Avenues may have more than four lanes). In addition, these LOS standards are complemented by several other transportation related policies to reduce overall vehicle miles traveled (such as Complete Streets and Transportation Demand Management). The following LOS standards apply to SEDA roadways:

- LOS E for Arterials, Collectors, and Local (both intersection and segment operations) during peak traffic hours.
- LOS F Exception. LOS F in areas with ample transit, pedestrian, and/or bicycle options, including in and around the Mixed-Use Districts of the SEDA, particularly if achieving a LOS with less delay would violate the four-lane maximum as described above.

Objective UF-6 Integrate urban form with a multimodal transportation network.

Policy UF-6.1 Land Use and Circulation Integration. The network of streets within the Mixed-Use Districts, Residential Districts, and Employment Center Districts will not only link districts to one another, but to other destinations beyond the Plan Area, as shown in Table 2.1 Network of Streets below.

Category	Arterial	Collector	Local
Mixed-Use Districts			
Regional Town Center	X	X	X
Community Town Center	X	X	X
Neighborhood Center	—	X	X
Residential Districts			
Mixed Residential	X	X	X
Neighborhood Residential	—	X	X
Rural Residential	—	X	X

Category	Arterial	Collector	Local
Rural Cluster Residential	—	X	X
Employment Centers			
Office Center	X	X	X
Flexible Research and Development	X	X	X
Institutional	X	X	X
Source: City of Fresno 2020.			

Objective UF-8 Manage transportation demand as it occurs.

Policy UF-8.1 SEDA Transportation Demand Management Program. Develop a TDM Plan consistent with the City’s VMT program. A mix of uses are intended in the Plan which seek to create a more compact lifestyle and reduce VMT to meet State requirements. The program should include physical design credits (i.e., bicycle storage, on-site showers, shared parking), lifestyle credits (i.e., on-site child care, telecommuting, flex hour programs), and credits for auto-alternative programs (i.e., shuttle service, subsidized transit, guaranteed ride home programs). Please refer to the Transportation Demand Management Programs inset for more information on these credits.

Open Space Element

Objective OS-4 Develop and maintain a greenway trail network connected to the SEDA circulation network that maximizes daily travel and recreation opportunities by linking town centers to destinations within and beyond the Southeast Development Area.

Policy OS-4.1 Multiuse Trails. Establish a planned network of multiuse greenway trails. These trails will serve bicyclists, pedestrians, and, where appropriate, equestrians. Cross-sections and width requirements will be provided for specific conditions- including canal side, open space, streetside and farm side trails.

Policy OS-4.2 Regional Trails. Coordinate regional trail planning with Fresno County, the City of Clovis, and other jurisdictions as appropriate. The City of Fresno Active Transportation Plan calls for Class I Bicycle Paths along each canal in the SEDA. A regional Rails to Trails Bicycle Path is planned to run parallel to California Avenue should existing railroad lines be vacated.

Policy OS-4.4 Trail Segments. Trail segments will not be constructed until all necessary property or easements are acquired for an entire segment.

Policy OS-4.5 SEDA Trails Master Plan. Prior to the design and construction of the SEDA trail system, a SEDA Trails Master Plan will need to be completed that would define the final location and alignment of trails.

Objective OS-14 Provide water, stormwater, and wastewater infrastructure necessary to serve development in the SEDA.

Policy OS-14.2 Curb, Gutter and Sidewalk Infrastructure. Require all necessary infrastructure, such as curb, gutter, sidewalk, street trees, public benches, bike parking and amenities to be installed prior to the development of new residential neighborhoods and associated facilities.

3.17.4 - Methodology

Study Area

The Traffic Impact Analysis evaluated traffic conditions at 20 study segments during the AM and PM peak hours and daily conditions for a typical weekday. The study segments were based on availability of count data from the County of Fresno count database. From the count data, the AM peak-hour was between 6:30 a.m. to 8:30 a.m., while the PM peak-hour was between 4:30 p.m. to 6:30 p.m. Figure 1 of the TIA (Appendix H) illustrates the Plan Area and the roadways analyzed. The study segments and associated traffic controls are as follows:

- Clovis Avenue south of American Avenue
- De Wolf Avenue north of McKinley Avenue
- De Wolf Avenue south of McKinley Avenue
- De Wolf Avenue south of Clinton Avenue
- De Wolf Avenue north of Jensen Avenue
- De Wolf Avenue south of Jensen Avenue
- Jensen Avenue east of Bethel Avenue
- Jensen Avenue east of De Wolf Avenue
- Jensen Avenue west of De Wolf Avenue
- Jensen Avenue east of Temperance Avenue
- Jensen Avenue west of Temperance Avenue
- Kings Canyon Road east of Temperance Avenue
- Locan Avenue north of Tulare Avenue
- Locan Avenue south of Tulare Avenue
- McCall Avenue north of McKinley Avenue
- McCall Avenue north of Ashlan Avenue
- McCall Avenue north of Belmont Avenue
- Tulare Avenue east of Locan Avenue
- Tulare Avenue west of Locan Avenue
- North Avenue west of Temperance Avenue

Study Area Levels of Service

LOS grades are generally defined as follows:

- A** represents free-flow travel with excellent level of comfort and convenience and the freedom to maneuver.

- B** represents stable operating conditions, but the presence of other road users causes a noticeable, though slight, reduction in comfort, convenience, and maneuvering freedom.
- C** represents stable operating conditions, but the operation of individual users is substantially affected by the interaction with others in the traffic stream.
- D** represents high-density, but stable flow. Users experience severe restriction in speed and freedom to maneuver, with poor levels of comfort and convenience.
- E** represents operating conditions at or near capacity. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver is difficult with users experiencing frustration and poor comfort and convenience. Unstable operation is frequent, and minor disturbances in traffic flow can cause breakdown conditions.
- F** represents forced or breakdown conditions. This condition exists when volume of traffic exceeds the capacity of the roadways. Long queues form and stop-and-go traffic becomes the norm.

Table 3.17-3 shows the roadway functional class and peak-hour LOS thresholds.

Table 3.17-3: Roadway Functional Class and Peak-hour LOS Thresholds

Functional Class	Median	Lane	Peak-hour Level of Service Capacity Thresholds				
			A	B	C	D	E
Freeway	N/A ¹	4	2,720	4,460	6,630	7,720	8,630
		3+Aux ²	2,360	3,860	5,640	3,730	7,530
		3	2,000	3,270	4,660	5,740	6,430
		2+Aux	1,650	2,700	3,850	4,760	5,340
		2	1,300	2,130	3,050	3,790	4,260
State Expressway	Divided	6	2,410	3,960	5,730	7,450	8,450
		4	1,610	2,650	3,810	4,960	5,630
		2	810	1,340	1,890	2,470	2,810
City Expressway	Raised Median	6			1,860	6,170	6,520
		5			1,520	5,110	5,430
		4			1,180	4,050	4,340
		2			520	1,910	2,160
Super Arterial	Raised Median	6				4,910	6,240
		5				4,040	5,195
		4				3,170	4,150
Arterial	Raised Median	8			2,120	7,070	7,490
		6			1,560	5,270	5,610
		5			1,280	4,370	4,670
		4			1,000	3,470	3,730

Functional Class	Median	Lane	Peak-hour Level of Service Capacity Thresholds				
			A	B	C	D	E
		3			720	2,555	2,795
		2			440	1,640	1,860
	TWLTL	4			940	3,290	3,550
		2			420	1,550	1,760
	Undivided	4			770	2,740	2,980
		2			340	1,270	1,480
Collector	TWLTL	4			940	3,290	3,550
		2			420	1,550	1,760
	Undivided	4			770	2,740	2,980
		2			340	1,270	1,480
One-Way	Undivided	3		1960	2,240	2,430	2,610
		2		1250	1,490	1,620	1,740
		1		550	740	800	870
Rural State Highway	Undivided	2	310	570	1,020	1,730	2,470
Rural Arterial	Divided	4			1,950	3,580	3,780
	Undivided	2			570	1,230	1,310
Rural Collector/Local	Undivided	2			700	930	1,000
Notes: ¹ N/A—Not applicable for operational class ² Aux—Auxiliary Lane - Level of Service (LOS) is not achievable because of the type of facility. Source: TJKM. 2025.							

For daily segment volume LOS analysis, the Transportation Research Board's Highway Capacity Manual Special Report 209 was used. Table 3.17-4 shows the LOS criteria for daily segment volumes based on volume-to-capacity ratios.

Table 3.17-4: LOS Thresholds for Daily Segment Volumes based on V/C Ratios

Level of Service	Description	V/C Ratios
A	Free-flow conditions with unimpeded maneuverability. Stopped delay at signalized intersection is minimal.	0.00 to 0.60
B	Reasonably unimpeded operation with slightly restricted maneuverability. Stopped delays are not bothersome.	0.61 to 0.70

Level of Service	Description	V/C Ratios
C	Stable operations with somewhat more restrictions in making mid-block lane changes than LOS B. Motorists will experience appreciable tension while driving.	0.71 to 0.80
D	Approaching unstable operations where small increases in volume produce substantial increase in delay and decrease in speed.	0.81 to 0.90
E	Operations with significant intersection approach delays and low average speeds.	0.91 to 1.00
F	Operations with extremely low speeds caused intersection congestion, high delay, and adverse signal progression.	Greater Than 1.00

Source: Transportation Research Board. Highway Capacity Manual, Special Report 209. 1994.

The City adopted its General Plan in December 2014 and it serves as the community’s guide for continued development, enhancement, and revitalization of the Fresno metropolitan area. The General Plan’s policies and standards for specific plans such as the SEDA project require a transportation impact study to assess the impact on existing and planned streets. Since the SEDA project is located in Traffic Impact Zone III (TIZ-III), the General Plan standards require that the project maintain a LOS standard of D or better for all roadway segments according to General Plan Policies MT-1-k and MT-2-i. However, the SEDA Specific Plan calls for a standard of LOS E or better, which is the standard used in the traffic analysis.

Vehicle Miles Traveled

SB 743, which was signed into law by Governor Brown in 2013 and codified in Public Resources Code (PRC) 21099, tasked OPR with establishing new criteria for determining the significance of transportation impacts under CEQA. SB 743 requires the new criteria to “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” SB 743 changes the way that public agencies evaluate the transportation impacts of projects under CEQA, recognizing that roadway congestion, while an inconvenience to drivers, is not itself an environmental impact (see PRC § 21099(b)(2)). In December 2018, OPR circulated its most recent Technical Advisory on Evaluating Transportation Impacts in CEQA, which provides recommendations and describes various options for assessing VMT for transportation analysis purposes. “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 or non-motorized travel. The VMT analysis options described by OPR are primarily tailored toward single-use development residential, office projects, not mixed-use projects and not athletic facility projects. OPR recommends the following methodology and criteria for specific land uses:

- For residential projects, OPR recommends that VMT impacts be considered potentially significant if a residential project is expected to generate VMT per capita (i.e., VMT per resident) at a rate that exceeds 85 percent of a regional average. However, the City’s VMT threshold is 87 percent of a regional average.

- For office projects, OPR recommends that VMT impacts be considered potentially significant if an office project is expected to generate VMT per employee at a rate that exceeds 85 percent of a regional average. However, the City's VMT threshold is 87 percent of a regional average.
- For retail projects, OPR recommends that VMT impacts be considered potentially significant if a project results in a net increase in total VMT. This approach takes into account the likelihood that retail developments may lead to increases or decreases in VMT, depending on previously existing retail travel patterns. This approach may also be used for other types of projects with customer components.
- OPR also indicates that local serving retail (projects smaller than 50,000 square feet) may be presumed to have a less than significant VMT impact.
- OPR does not provide specific guidance on evaluating other land use types, except to say that other land uses could choose to use the method applicable to the land use with the most similarity to the proposed project.
- For mixed-use projects, OPR describes several options that include (1) evaluating each land use separately; or (2) evaluating mixed-use projects based on the method applicable to the dominant land use. Evaluating each land use separately would potentially fail to measure the positive effects of mixed-use projects in reducing VMT.

OPR also recommends exempting some project types from VMT analysis based on the likelihood that such projects will generate low rates of VMT:

- OPR recommends that projects generating less than 110 trips per day generally may be assumed to cause a less than significant transportation impact.
- OPR notes that residential and office projects located in areas with low VMT, and that incorporate similar features, will tend to exhibit similar low VMT and can be screened out.
- OPR states that residential, retail, office, and mixed-use projects near transit stations or major transit stops should be screened out based on the likelihood that such projects will have a less than significant impact on VMT.

VMT Screening Criteria

City of Fresno guidelines include the following screening criteria for identifying projects that can be presumed to have a less than significant impact:

- Residential, retail, office projects, or mixed-use projects proposed within 0.5 mile of an existing major transit stop or an existing stop along a high-quality transit corridor.
- Projects involving local serving retail space of less than 50,000 square feet.
- Projects having a high level of affordable housing units.
- Projects generating less than 500 Average Daily Traffic (ADT).
- Projects that develop institutional/government and public service uses that support community health, safety, and welfare.

- Residential and office projects located in areas with low VMT and incorporate similar features.
- Consistency with other plans to reduce GHG emissions.

Fresno Activity Based Travel Demand Model

The latest approved version of the Fresno Activity Based Travel Demand Model (FresnoABM) was obtained for use in travel demand forecasting and VMT analysis for this project. All traffic volume forecasts were adjusted, using the difference (delta) method, to account for the difference between existing counts and base year model forecasts. The FresnoABM has a base year of 2019 and a forecast year of 2035, while the count data collected from the Fresno City count database were from the year 2018.

3.17.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in the CEQA Guidelines Appendix G Environmental Checklist to determine whether transportation and traffic impacts are significant environmental effects. Would the project:

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

3.17.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

Effect to Circulation System

Impact TRANS-1: **The proposed project could conflict with a program plan, ordinance or policy of the circulation system, including transit, roadway, bicycle and pedestrian facilities.**

Impact Analysis

Proposed Project Trip Generation

Table 3.17-5 summarizes daily and PM peak-hour trip generation for the proposed project. Institute of Traffic Engineers (ITE) Trip Generation 11th Edition was used to generate the trip rates for the four types of land uses in the proposed project.

Table 3.17-5: Proposed Project Trip Generation

Land Use (units)	Size		Daily		PM Peak-hour	
			Rate	Trips	Rate	Trips
Housing (dwelling units)	45,274	Dwelling units	8.35	378,038	0.77	34,861
Retail/Commercial (employees)	12,648	Employees	26.60	336,437	3.49	44,142
Office (employees)	8,069	Employees	3.33	26,870	0.45	3,631
Government/Civic (employees)	16,681	Employees	7.50	125,108	0.71	11,844
Total Trips			866,452		94,477	
Source: Transportation Research Board. Highway Capacity Manual, Special Report 209. 1994.						

In total, the proposed project is expected to generate 866,452 total daily trips and 94,477 PM peak-hour trips from the 45,274 total dwelling units and 37,398 total employees at full buildout.

Roadway Impact Analysis—Traffic Increase

The proposed project would not have an impact on the existing roadways within the project area. Other roadways within the Plan Area would be upgraded into a network of Complete Streets as defined by the Fresno Complete Streets Policy adopted in 2019. A Complete Street is defined as a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users—including bicyclists, pedestrians, transit vehicles, trucks, and motorists. In addition to Complete Streets, the safety of the designed roadway network environment would be implemented such that driver, pedestrian, and bicyclist safety are paramount.

The proposed project would be consistent with General Plan Policy MT-1-k, which calls for planning and design of roadway systems to meet LOS D on major roadways. Roadway improvements to increase capacity and maintain LOS standards would be planned and programmed based on consideration of the total overall needs of the roadway system, recognizing the priority of maintenance, rehabilitation, and operation of the existing road system. Convenient transit stops would be provided in the Plan Area, and sidewalks would be constructed pursuant to City standards.

Further, the proposed project would be consistent with the General Plan objectives and policies to create and maintain a transportation system that is safe, efficient, provides access in an equitable manner, and optimizes travel by all modes. The proposed project is a comprehensive planning document for the nearly 9,000-acre growth area and addresses wide-ranging infrastructure and community challenges associated with accommodating a large increment of the City's growth. Planning at this scale allows design and phasing of infrastructure improvements that are more efficient, environmentally sensitive, and cost-effective. The plan provides for mobility within and across town centers, neighborhoods, schools, and open spaces by comprehensively planning roadways, high-quality transit service, and safe walking and biking connections. The plan also provides for variety of transportation options necessary to meet the needs of the residents and

employees within the Plan Area. Centers would be designed with a clear pattern of pedestrian-scaled streets, blocks, buildings, and public spaces based on the block connectivity and size standards specified in the SEDA Development Code Update, including a transportation network that is based on a high-density grid system. These policies would ensure consistency with applicable goals, objectives, and policies of the various transportation plans locally and regionally.

Because site-specific designs showing driveway locations have not been developed, there are no specific details to review and assess impacts on pedestrian, bicycle, and transit facilities. As part of the standard development review process, the City will require all future proposed development of parcels to go through a review of pedestrian, bicycle, and transit facilities in the area surrounding the individual development project to ensure that future developments do not conflict with existing or planned facilities supporting those travel modes. All proposed pedestrian, bicycle, and transit facilities would be designed using the appropriate design standards. The impact on these facilities would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-1a Provide more options for shorter trips by encouraging vertical mixed uses and locating residential uses in walking distance (0.5 mile) to retail and employment uses.

MM TRANS-1b Provide pedestrian and bicycle network improvements within the development connecting complementary uses (i.e., residential, employment, retail, and transit stops) internally and to existing off-site facilities.

MM TRANS-1c Ensure that design of key intersections and roadways encourage the use of walking, biking, and transit.

MM TRANS-1d Collaborate with the Fresno Area Express (FAX) to provide new transit services to the proposed project and within the proposed project area.

MM TRANS-1e In addition, the following Transportation Demand Management (TDM) strategies may be applicable at the implementing project level:

- Reduce Parking Supply for Retail Uses (maximum reduction: 12.5 percent)
- Add Transit Rerouting and Transit Stops (maximum reduction: 5 percent)
- Implementation of Local Shuttle Service (grouped strategy with transit system improvements)
- Mandatory Travel Behavior Change Program, Promotions and Marketing (maximum reduction: 1 percent)
- Promotions and Marketing (maximum reduction: 1 percent)
- Emergency Ride Home (ERH) Program (maximum reduction: 3 percent)
- School Carpool Program (maximum reduction: 15 percent)

- Bike Share (maximum reduction: 0.25 percent)
- Implement/Improve On-street Bicycle Facility (maximum reduction: 0.625 percent)
- Traffic Calming Improvements (maximum reduction: 1 percent)
- Pedestrian Network Improvements (maximum reduction: 2 percent)

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Conflict with CEQA Guidelines Section 15064.3, Subdivision (b)

Impact TRANS-2: The proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

Impact Analysis

The primary components of Section 15064.3 include:

- Identifies VMT (amount and distance of automobile traffic attributable to a project) as the most appropriate measure of transportation impacts;
- Declares that a project's effect on automobile delay shall not constitute a significant environmental impact (except for projects increasing roadway capacity);
- Creates a rebuttable presumption of no significant transportation impacts for (a) land use projects within 0.5 mile of either an existing major transit stop or a stop along an existing high-quality transit corridor, (b) land use projects that reduce VMT below existing conditions, and (c) transportation projects that reduce or have no impact on VMT;
- Allows a lead agency to qualitatively evaluate VMT if existing models are not available; and
- Gives lead agencies discretion to select a methodology to evaluate a proposed project's VMT but requires lead agencies to document that methodology in the environmental document prepared for the proposed project (OPR's technical advisory provides recommendation on preferable methodology).

The City of Fresno CEQA standards for land use plans, such as SEDA, states that the project should compare the base year existing VMT per capita and/or VMT per employee with the horizon year with project VMT per capita and/or VMT per employee. If the horizon year with project VMT is higher than the base year, then there will be an impact. The project generates fewer VMT/capita and VMT/employee in the horizon year, and thus the impact would be less than significant.

Year 2035 No Project Conditions Vehicle Miles Traveled

For the Year 2035 baseline no project conditions VMT, the SEDA project area was overlaid on top of the FresnoABM loaded vehicle assignment network and the total VMT for the SEDA project was calculated by multiplying daily volumes by distance traveled. In addition, VMT per Service Population (which is the sum of population and employees) was calculated. Table 3.17-6 summarizes the 2035 baseline no project VMT from the FresnoABM for the SEDA project area. In the forecast year no

project condition, VMT per Service Population for the SEDA project area falls slightly compared to the existing base year condition.

Based on the model outputs, from 2015 (Base Year) to 2035 No Project, VMT per Service Population decreased from 57.79 to 45.72 due to minor population and employment growth without significant changes to land use or transportation infrastructure.

Table 3.17-6: Year 2035 No Project Conditions VMT

Category	2035 Base Year Model
Plan Area VMT	371,397
Population	5,046
Employment	3,077
SEDA VMT per Service Population	45.72
Notes: SEDA = Southeast Development Area VMT = Vehicle Miles Traveled Source: TJKM. 2025.	

Year 2035 With Project Conditions Vehicle Miles Traveled

For the Year 2035 with project conditions VMT, the SEDA project area was overlaid on top of the FresnoABM loaded vehicle assignment network and the total VMT for the SEDA project was calculated by multiplying daily volumes by distance traveled. In addition, VMT per Service Population (which is the sum of population and employees) was calculated. Table 3.17-7 summarizes the 2035 baseline with project VMT from the FresnoABM for the project area.

Table 3.17-7: Year 2035 With Project Conditions VMT

Category	2035 With Project Model (SEDA)
Plan Area VMT	974,369
Population	151,670
Employment	40,490
SEDA VMT per Service Population	5.07
Notes: SEDA = Southeast Development Area VMT = Vehicle Miles Traveled Source: TJKM. 2025.	

The VMT per Service Population in the project area with the project built out in 2035 drops from 45.72 to 5.07. There is a substantial reduction in VMT per Service Population in the horizon year (2035). While total VMT is projected to increase due to population and employment growth, the

VMT per Service Population is expected to decrease from 45.72 in the “No Project” scenario to 5.07 in the “With Project” scenario.

The transition from a mostly rural area (which the project area currently is) to a developed urbanized mixed-use site results in a large VMT reduction. This is because trip distances for both the production side (residential) and attraction side (commercial) are shortened since residents and employees are now better connected to jobs and services within the project area. By grouping residential, commercial, and employment land uses, the proposed project minimizes the needs for long vehicular trips. This integration significantly reduces trip lengths, as daily needs can be met within the Plan Area itself. This significant reduction demonstrates the proposed project’s alignment with sustainable land use and transportation principles, as it facilitates shorter and more efficient trips for residents and employees.

The findings conclude that the proposed project would result in less than significant impacts on VMT due to its efficient land use integration. This integration significantly reduces trip lengths, as daily needs can be met within the Plan Area itself.

In addition, with the incorporation of multimodal strategies, the proposed project incorporates a comprehensive transportation network designed to reduce vehicle dependence. Key components include:

- Expansive pedestrian and bicycle infrastructure.
- Integration with regional transit systems, including planned Bus Rapid Transit (BRT) routes.
- TDM strategies, such as shared parking, transit subsidies, and local shuttle services. These features encourage active and shared transportation modes, further mitigating potential VMT impacts.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Hazards

Impact TRANS-3: 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).

Impact Analysis

As previously discussed, the proposed project does not approve or entitle any specific development and specific project design is unknown at this time. However, Caltrans comments on the Notice of Preparation (NOP) for the proposed project requested that peak-hour ramp queue analyses be prepared for specific SR-180 interchanges and intersections at project buildout to determine potential impacts. The requested interchanges include Clovis Avenue, Fowler Avenue, and Temperance Avenue, and the requested intersections include De Wolf Avenue, Highland Avenue, and

McCall Avenue. An unacceptable queueing condition exists if queue lengths extend past queue lanes or exit ramps (queue spillback), creating a potential traffic hazard. A significant impact could occur if new or worsening queue spillback occurs. Excess queueing can generate speed differentials between slow or stopped traffic on ramps or in turn pockets, and faster traffic in through lanes. Thus, the following analysis contains results of queue length analyses for all of the interchanges and intersections identified above.

The queueing analysis was conducted using expected lane geometry and traffic control at the Specific Plan buildout in 2035, which includes the anticipated widening of Temperance Avenue to six lanes, De Wolf Avenue to four lanes, and signal timings obtained from Caltrans. Estimated turning movements at all study locations were extracted from the Fresno Activity Based Model (FresnoABM) and adjusted to projected 2035 No Project and 2035 Proposed Project conditions using current ramp and mainline volumes. Using these volumes, the queueing analysis was conducted using Synchro 11 and SimTraffic 11 software. Simulation results were based on the average results of five one-hour runs, in accordance with Caltrans methodology and are included in Appendix H.

Additionally, through coordination with Caltrans, TJKM updated the queueing analysis to reflect the use of auxiliary lanes for additional storage. All of the interchanges and intersections analyzed, and the results of the queueing analysis, are included in Table 3.17-8 below.

Table 3.17-8: 2035 Project and No Project Queue Analyses Results

#	Intersection/ Interchange	Direction	Lane Group	Storage	Peak	No Project Conditions (2035)	Proposed Project Conditions (2035)	Change
1	Clovis Avenue and SR-180 EB Ramp	EB	Left (pocket)	255	AM	79	9	-70
					PM	335	375	40
			Left (full lane)	1,270	AM	350	55	-295
					PM	1581	1738	157
			Right (full lane plus aux lane)	2,990	AM	717	261	-456
					PM	1582	1706	124
2	Clovis Avenue and SR-180 WB Ramp	WB	Left	440	AM	853	687	-166
					PM	66	86	20
			Right	1090	AM	1738	1789	51
					PM	139	124	-15
3	Fowler Avenue and SR-180 EB Ramp	EB	Left (pocket)	400	AM	0	5	5
					PM	0	0	0
			Left (full lane)	1,260	AM	9	18	9

#	Intersection/ Interchange	Direction	Lane Group	Storage	Peak	No Project Conditions (2035)	Proposed Project Conditions (2035)	Change
					PM	15	20	5
			Right (full lane plus aux lane)	3,000	AM	111	118	7
					PM	207	232	25
			Right (pocket)	235	AM	91	102	11
					PM	205	237	32
4	Fowler Avenue and SR-180 WB Ramp	WB	Left	650	AM	31	78	47
					PM	33	36	3
			Right	1,420	AM	177	112	-65
					PM	80	61	-19
5	Temperance Avenue and SR- 180 EB Ramp	EB	Left (pocket)	440	AM	0	0	0
					PM	4	604	600
			Left (full lane)	1,665	AM	23	27	4
					PM	25	2046	2021
			Right (full lane)	3,500	AM	124	95	-29
					PM	162	2019	1857
			Right (pocket)	680	AM	112	78	-34
					PM	155	946	791
6	Temperance Avenue and SR- 180 WB Ramp	WB	Left (pocket)	400	AM	82	42	-40
					PM	46	41	-5
			Left (full lane)	1,485	AM	112	69	-43
					PM	90	63	-27
			Right (pocket)	840	AM	0	159	159
					PM	0	0	0
7	De Wolf Avenue and SR- 180	EB	Left	725	AM	372	806	434
					PM	212	663	451
			Right	700	AM	482	1110	628
					PM	10	681	671
		WB	Left	690	AM	98	178	80
					PM	67	209	142
			Right	690	AM	21	43	22
					PM	40	39	-1

#	Intersection/ Interchange	Direction	Lane Group	Storage	Peak	No Project Conditions (2035)	Proposed Project Conditions (2035)	Change
8	Highland Avenue and SR- 180	EB	Left/Right	965	AM	24	73	49
					PM	19	150	131
		WB	Left	630	AM	11	17	6
					PM	11	118	107
9	McCall Avenue and SR-180	EB	Left	555	AM	315	185	-130
					PM	100	194	94
			Right	510	AM	821	159	-662
					PM	65	90	25
		WB	Left	550	AM	983	737	-246
					PM	31	37	6
			Right	630	AM	839	1069	230
					PM	47	88	41
Notes: EB = eastbound WB = westbound Bold text indicates queues extending beyond available storage Source: TJKM. 2025.								

As shown in Table 3.17-8, above, the updated queueing analysis using available storage from the SR-180 auxiliary lane means that the Clovis and SR-180 interchange would not require any mitigation for the future with project conditions. As noted in the Caltrans letter dated August 16, 2024, auxiliary lanes can be used for additional storage. Interchange 1 (Clovis Avenue and SR-180 eastbound ramp) queueing now does not indicate a deficit (not bold text).

For Interchange 2 (Clovis Avenue and SR-180 westbound ramp), the proposed project already fails in the no project condition, so no mitigation is necessary for the proposed project.

Interchange 5 (Temperance Avenue and SR-180 eastbound ramp), like Interchange 1, utilizes the auxiliary lane to provide enough storage for the left and right turn movements in the project buildout condition. The only mitigation measures needed are for Intersections 7 and 9, where the existing queue length is not enough to accommodate the increased project traffic.

For Intersection 7 (De Wolf Avenue and SR-180 intersection), the proposed project would be required to implement MM TRANS-3a, which requires lengthening the eastbound turning lane to 875 feet and the westbound turning lane to 1,150 feet.

For Intersection 9 (McCall Avenue and SR-180 intersection), the proposed project would be required to implement MM TRANS-3b, which requires lengthening the westbound turning lane to 1,075 feet.

In addition, future development consistent with the proposed project would undergo individual planning review at the time of application and additional project-specific environmental review may be required. It is not anticipated that development would substantially increase hazards due to a geometric design feature or incompatible uses because the City would require review proposed future developments for consistency with applicable regulations, including the policies in the General Plan, designed to ensure safety, during planning review to eliminate any such hazards. Thus, with implementation of MM TRANS-3a and MM TRANS-3b, impacts would be less than significant.

Level of Significance

Potentially significant impact.

Mitigation Measures

The following mitigation measures shall be implemented as necessary through monitoring and coordination between Caltrans and the City of Fresno:

MM TRANS-3a Lengthen the eastbound turning lane to 875 feet and the westbound turning lane to 1,150 feet for the De Wolf Avenue and State Route (SR) 180 intersection.

MM TRANS-3b Lengthen the westbound turning lane to 1,075 feet for the McCall Avenue and State Route (SR) 180 intersection.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Emergency Access

Impact TRANS-4: The proposed project could result in inadequate emergency access.

Impact Analysis

The proposed project may require temporary lane closures or detours during construction activity. However, all lane closures or detours would be coordinated with the sheriff and fire departments to ensure that access to existing businesses and through circulation are maintained as well as emergency access. The construction contractor would provide signage, cones, and/or flag persons as deemed necessary through a project-specific Construction Management Plan (CMP) to ensure adequate emergency access. All development will be required to prepare a CMP to demonstrate to the City and the associated sheriff and fire departments that emergency access would be maintained at all times during construction. Preparation of a CMP, as required by MM TRANS-4, would reduce any impact of temporary lane closures or detours to less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-4 At the time of planning application submittal, the project applicant shall prepare a Construction Management Plan (CMP) that shall specify traffic controls required to maintain adequate circulation and access throughout the Southeast Development (SEDA) Specific Plan Area. At least one lane shall remain open in each direction during construction and access to all existing businesses shall be maintained. This plan shall be subject to approval by the jurisdictional police and fire departments prior to commencement of construction.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

3.17.7 - Cumulative Impacts

The geographic context for an analysis of cumulative impacts to transportation and circulation is the City of Fresno and the existing transportation network.

Year 2035 Baseline (No Project) Conditions

The following presents the results of the LOS calculations under the year 2035 baseline conditions without the project. LOS analysis at the study segments were conducted for 2035 no project conditions to establish a base to evaluate the impacts due to the addition of traffic from the proposed project. Study segment volumes were forecasted using the Fresno Activity Based Travel Demand Model. Table 3.17-9 shows the forecasted study segment volumes for the year 2035 baseline (no project) conditions.

Table 3.17-9: Year 2035 Baseline (No Project) Conditions Study Segment Traffic Volumes

Segment Name	#	AM Peak-hour	PM Peak-hour	Daily
Clovis Avenue south of American Avenue	1	1,071	1,163	15,309
De Wolf Avenue north of McKinley Avenue	2	688	495	4,237
De Wolf Avenue south of McKinley Avenue	3	282	258	1,881
De Wolf Avenue south of Clinton Avenue	4	484	347	3,470
De Wolf Avenue north of Jensen Avenue	5	187	174	1,693
De Wolf Avenue south of Jensen Avenue	6	95	137	1,221
Jensen Avenue east of Bethel Avenue	7	1,006	1,105	15,079
Jensen Avenue east of De Wolf Avenue	8	705	830	11,518
Jensen Avenue west of De Wolf Avenue	9	597	850	10,143
Jensen Avenue east of Temperance Avenue	10	1,606	1,095	13,894
Jensen Avenue west of Temperance Avenue	11	1,333	1,107	12,676
Kings Canyon Road east of Temperance Avenue	12	4	4	52
Locan Avenue north of Tulare Avenue	13	18	32	218

Segment Name	#	AM Peak-hour	PM Peak-hour	Daily
Locan Avenue south of Tulare Avenue	14	12	34	199
McCall Avenue north of McKinley Avenue	15	500	382	4,197
McCall Avenue north of Ashlan Avenue	16	390	439	5,167
McCall Avenue north of Belmont Avenue	17	485	518	5,730
Tulare Avenue east of Locan Avenue	18	38	45	363
Tulare Avenue west of Locan Avenue	19	59	90	861
North Avenue west of Temperance Avenue	20	193	216	2,442
Source: TJKM. 2025.				

Study Segment Level of Service Analysis—Year 2035 No Project Conditions

The study segment LOS analysis for the forecasted volumes are presented in Table 3.17-10. All of the study segments in the year 2035 no project conditions are forecasted to perform at a LOS of D or better.

Table 3.17-10: Year 2035 Baseline (No Project) Conditions Study Segment LOS

Segment Name	#	AM Peak-hour	PM Peak-hour	Daily
Clovis Avenue south of American Avenue	1	C	C	B
De Wolf Avenue north of McKinley Avenue	2	D	D	C
De Wolf Avenue south of McKinley Avenue	3	C	C	B
De Wolf Avenue south of Clinton Avenue	4	D	C	B
De Wolf Avenue north of Jensen Avenue	5	C	C	A
De Wolf Avenue south of Jensen Avenue	6	B	B	A
Jensen Avenue east of Bethel Avenue	7	C	C	B
Jensen Avenue east of De Wolf Avenue	8	B	B	A
Jensen Avenue west of De Wolf Avenue	9	B	B	A
Jensen Avenue east of Temperance Avenue	10	C	C	B
Jensen Avenue west of Temperance Avenue	11	C	C	B
Kings Canyon Road east of Temperance Avenue	12	A	A	A
Locan Avenue north of Tulare Avenue	13	A	A	A
Locan Avenue south of Tulare Avenue	14	A	A	A
McCall Avenue north of McKinley Avenue	15	D	D	C
McCall Avenue north of Ashlan Avenue	16	D	D	C
McCall Avenue north of Belmont Avenue	17	D	D	C
Tulare Avenue east of Locan Avenue	18	A	A	A

Segment Name	#	AM Peak-hour	PM Peak-hour	Daily
Tulare Avenue west of Locan Avenue	19	A	A	A
North Avenue west of Temperance Avenue	20	A	A	A
Source: TJKM. 2025.				

Level of Service

This analysis presents the results of the LOS calculations for the year 2035 conditions with the proposed project. LOS analysis at the study segments were conducted for 2035 with project conditions. Study segment volumes were forecasted using delta method, using the FresnoABM. Table 3.17-11 shows the forecasted study segment volumes for the year 2035 with project conditions.

Table 3.17-11: Year 2035 With Project Conditions Study Segment Traffic Volumes

Segment Name	#	AM Peak-hour	PM Peak-hour	Daily
Clovis Avenue south of American Avenue	1	1,266	1,367	18,223
De Wolf Avenue north of McKinley Avenue	2	838	544	5,510
De Wolf Avenue south of McKinley Avenue	3	457	357	3,614
De Wolf Avenue south of Clinton Avenue	4	610	395	4,678
De Wolf Avenue north of Jensen Avenue	5	322	305	3,549
De Wolf Avenue south of Jensen Avenue	6	178	235	2,166
Jensen Avenue east of Bethel Avenue	7	1,135	1,375	18,813
Jensen Avenue east of De Wolf	8	1,040	1,179	16,757
Jensen Avenue west of De Wolf	9	866	1,180	15,122
Jensen Avenue east of Temperance	10	2,096	1,519	20,017
Jensen Avenue west of Temperance Avenue	11	1,862	1,562	19,744
Kings Canyon Road east of Temperance Avenue	12	8	8	111
Locan Avenue north of Tulare Avenue	13	44	44	392
Locan Avenue south of Tulare Avenue	14	29	48	320
McCall Avenue north of McKinley Avenue	15	831	651	6,377
McCall Avenue north of Ashlan Avenue	16	562	612	5,662
McCall Avenue north of Belmont Avenue	17	867	919	9,956
Tulare Avenue east of Locan Avenue	18	54	61	582
Tulare Avenue west of Locan Avenue	19	80	118	1,391
North Avenue west of Temperance Avenue	20	193	286	2,442
Source: TJKM. 2025.				

Compared to the 2035 no project condition, Jensen Way and McCall Lane saw the most growth in AM peak-hour, PM peak-hour, and daily volumes with the proposed project built out. Because of the existing low volumes from the City of Fresno count data, the forecasted with project volumes are not as high as raw FresnoABM output volumes.

Study Segment Level of Service Analysis—Year 2035 With Project Conditions

The study segment LOS analysis for the forecasted volumes are presented in Table 3.17-12. All of the study segments in the year 2035 with project conditions are forecasted to perform at a LOS of D or better.

Table 3.17-12: Year 2035 With Project Conditions Study Segment LOS

Segment Name	#	AM Peak-hour	PM Peak - hour	Daily
Clovis Avenue south of American Avenue	1	C	C	B
De Wolf Avenue north of McKinley Avenue	2	D	D	D
De Wolf Avenue south of McKinley Avenue	3	D	D	D
De Wolf Avenue south of Clinton Avenue	4	D	D	D
De Wolf Avenue north of Jensen Avenue	5	D	D	D
De Wolf Avenue south of Jensen Avenue	6	D	D	D
Jensen Avenue east of Bethel Avenue	7	C	C	B
Jensen Avenue east of De Wolf Avenue	8	C	C	B
Jensen Avenue west of De Wolf Avenue	9	C	C	B
Jensen Avenue east of Temperance Avenue	10	C	C	B
Jensen Avenue west of Temperance Avenue	11	C	C	A
Kings Canyon Road east of Temperance Avenue	12	A	A	A
Locan Avenue north of Tulare Avenue	13	A	A	A
Locan Avenue south of Tulare Avenue	14	A	A	A
McCall Avenue north of McKinley Avenue	15	D	D	C
McCall Avenue north of Ashlan Avenue	16	D	D	C
McCall Avenue north of Belmont Avenue	17	D	D	C
Tulare Avenue east of Locan Avenue	18	A	A	A
Tulare Avenue west of Locan Avenue	19	A	A	A
North Avenue west of Temperance Avenue	20	A	A	A
Source: TJKM. 2025.				

Proposed project development in combination with future cumulative development in the City could result in localized impacts on the transportation network in the City. It is anticipated that cumulative

development would be required to implement similar mitigation measures as the proposed project to reduce potential impacts on the transportation system, although there may be residual significant and unavoidable impacts. MM TRANS-1a through MM TRANS-1e, MM TRANS-3a, MM TRANS-3b, and MM TRANS-4 would apply to the proposed project to reduce any project-level impacts to less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to potential cumulative transportation and circulation impacts and the cumulative impact would be less than significant.

Level of Cumulative Significance Before Mitigation

Potentially significant impact.

Cumulative Mitigation Measures

Implement MM TRANS-1a through MM TRANS-1e, MM TRANS-3a, MM TRANS-3b, and MM TRANS-4.

Level of Cumulative Significance After Mitigation

Less than significant impact with mitigation incorporated.

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3.18 - Utilities and Service Systems

3.18.1 - Introduction

This section describes the existing conditions related to utilities and service systems (water, wastewater, stormwater, and solid waste) in the City of Fresno (City) and Plan Area as well as the relevant regulatory framework. This section also evaluates the possible impacts related to such utilities and service systems that could result from implementation of the proposed project. Information in this section is based on information provided by the planning documents for each utility type. Water supply and facilities information was obtained from the City of Fresno 2020 Urban Water Management Plan prepared by Water Systems Consulting, Inc. in 2021; the technical memorandum prepared by West Yost Associates in 2013 for the Hydraulic Evaluation of the Proposed 2035 General Plan (General Plan) Land Use Update for the Master Environmental Impact Report (MEIR) as part of the City of Fresno General Plan Update MEIR; and the Water Technical Study prepared for the Specific Plan by Blair, Church & Flynn in 2022 (see Appendix I). Recycled water supply and facilities information was obtained from the Recycled Water Master Plan prepared by Carollo in 2010; the Engineering Report for the Production, Distribution and Use of Recycled Water prepared by Blair, Church & Flynn in 2015; and the Recycled Water Technical Study prepared for the Specific Plan by Blair, Church & Flynn in 2022 (see Appendix I). Wastewater collection and facilities information was obtained from the Wastewater Collection System Master Plan Update prepared by Carollo in association with Blair, Church & Flynn in 2015 and the Wastewater Technical Study prepared for the Specific Plan by Blair, Church & Flynn in 2022 (see Appendix I). Storm drain collection and facilities information was obtained from the Fresno Metropolitan Flood Control District (FMFCD) 2016 District Services Plan; the FMFCD Storm Drain and Flood Control Master Plan; and the Storm Drain Technical Study prepared for the Specific Plan by Blair, Church & Flynn in 2022 (see Appendix I).

As further discussed in Chapter 1, Introduction, 12 public comments were received during the Draft Program Environmental Impact Report (Draft PEIR) scoping period related to the proposed project's potential Utilities and System Services impacts:

- States that the County has a water-providing Community Service Area (CSA) (CSA 14) which is interested in connecting to the City of Fresno's (the City's) water system and that the County has several road CSAs within the Plan Area.
- States that many of the existing facilities will need to be upgraded to meet the current urban standards or relocated by the developer to accommodate new urban developments which will require new pipelines and new exclusive easements.
- Requires that all open channels and existing pipelines impacted by the project area development to be upgraded to meet Fresno Irrigation District's (FID's) current standards for urban, rural, and industrial areas. Requires that development impacts to large canal crossings to be designed to protect the canals' integrity for an urban setting, including the need for access and full right-of-way widths for FID's operations and maintenance needs.

- Requires that development within the Plan Area will not result in an increase in the City's surface water allocation from FID.
- Requests that the Draft PEIR evaluate whether the City's Water Master Plan needs to be updated and how the Cooperative Agreement between the City and FID may impact development within the Plan Area.
- Requests that the Draft PEIR evaluate whether previous projects proposed under the City's Water Master Plan resulted in the benefits anticipated.
- Requests that the Draft PEIR require that any future development minimize water demand and/or reduce impacts to groundwater.
- Requires that if any future development under the Southeast Development Area (SEDA) uses treated surface water during a period when the City has a deficit water supply or groundwater levels continue to drop, then the City must acquire additional water from a water purveyor as to not impact water supplies or exacerbate the deficit.
- Identifies that groundwater overdraft is an issue in the City and requires that the Draft PEIR evaluates the Specific Plan's impact on groundwater resources.
- Requests that the Draft PEIR accurately captures and analyzes baseline conditions and potentially significant project-specific and cumulative impacts within and adjacent to the Planning Area.
- Requests that the Draft PEIR identifies and adopts all feasible and enforceable mitigation measures that avoid and reduce negative impact.
- Requests that the Draft PEIR analyzes and creates mitigation measures consistent with all applicable laws, including State and federal fair housing, civil rights, and climate laws such as Senate Bill (SB) 743.

3.18.2 - Environmental Setting

The study area for project impacts regarding utilities and service systems is the SEDA Specific Plan Area (Plan Area).

Water

This section describes existing City water supply sources, distribution and storage infrastructure, and treatment facilities, as well existing and projected demand and supply for the current General Plan and proposed Specific Plan.

Water Source and Supply

Key planning documents for the City's water source and supplies include the 2020 Urban Water Management Plan (UWMP); the City of Fresno General Plan (General Plan); and the City of Fresno Metropolitan Water Resources Management Plan Update (Metro Plan).¹

¹ City of Fresno. 2007. Metropolitan Water Resources Management Plan Update. Accessed July 8, 2022.

The City's Water Division manages and operates the City's water system. The City provides potable water to over 550,000 customers, including residential, commercial, and industrial users, in an approximately 115-square-mile (73,500-acre) area that includes many County islands (unincorporated areas within the City), and areas within the City's Sphere of Influence (SOI). Fresno's domestic water supplies include groundwater, surface water, and reclaimed water. According to the most recent available water supply data for 2020, extracted groundwater supply totaled 55,028 acre-feet (AF), surface water supply totaled 108,739 AF, and recycled water supply totaled 912 AF.² Projected water supply for 2035 is 346,610 AF (149,100 AF of groundwater, 191,600 AF of surface water, and 5,910 AF of recycled water) during normal water years.³

The 2020 UWMP describes current and planned water conservation plans, provides a water shortage contingency plan should it need to be implemented in the event of a severe water shortage or water supply emergency, and includes future water supply plans for a variety of water sources including treated surface water, groundwater, and recycled water. The 2020 UWMP is in accordance with the Urban Water Management Planning Act that stipulates that every urban water supplier in California supplying water directly or indirectly to 3,000 or more customers or supplying more than 3,000 AF of water annually shall adopt and submit an Urban Water Management Plan to the California Department of Water Resources. Failure to submit a plan as required could result in ineligibility to receive certain grants or receive drought assistance from the State.

Groundwater Supply

The City is located within the Kings River Subbasin of the San Joaquin Valley Groundwater Basin. Historically, the City has relied heavily on groundwater pumped from the underground basin and aquifers to meet its water demands. The City has a network of over 270 municipal water wells and operates approximately 202 active municipal supply wells that access groundwater from said basin.⁴ The production capacity from the active wells is approximately 403 million gallons per day (mgd), and the total capacity including inactive wells is approximately 487 mgd. The wells are located around the City, and most are directly connected into the water distribution system. The City's water system depended completely on groundwater as a water source until 2004 when the first Surface Water Treatment Facility (SWTF) was commissioned. Today, groundwater is still heavily relied upon as a primary water source for the City; however, the City is working to maximize the use of its surface water supplies to reduce future dependence on groundwater.

Groundwater quality generally meets primary and secondary drinking water standards for municipal water use; however, the groundwater basin has been impacted by several chemical contaminant plumes, as well as nitrates, all of which require monitoring and wellhead treatment. Treatment efforts and removal of specific wells from service are conducted as required to maintain drinking water supply quality and standards.

Fresno is located within the North Kings Groundwater Sustainability Agency (GSA), which is working to reach groundwater sustainability in accordance with the Sustainable Groundwater Management Act (SGMA). SGMA requires governments and water agencies of "critically overdrafted" basins to

² Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan. July.

³ Ibid.

⁴ Ibid.

reach sustainability by 2040; the Kings River Subbasin was identified as a critically overdrafted basin. As a result, the City has placed a higher priority on developing its surface water supply and decreasing its reliability on groundwater to allow the basin to recharge. The City actively works to recharge the groundwater basin. As a result of the City's investment in other water supplies, groundwater levels in Fresno have already begun to recover from low levels experienced during the recent droughts.⁵

The City replenishes groundwater by three methods: natural recharge, subsurface inflow, and intentional recharge.

Natural recharge occurs as precipitation, irrigation, canal, and/or stream flows infiltrate the soils and seep down to the water table to replenish the aquifer. Per the 2020 UWMP, the Kings Basin Integrated Groundwater and Surface Water Model (IGSM), completed in 2007, provides the best available information on the City's groundwater yield. As such, the annual natural recharge from 1964 to 2004 was determined to be 42,700 acre-feet per year (AFY), however, this was projected to decline steadily from 2005 to General Plan buildout within the City's SOI due to increased urbanization and development and a reduction in pervious surfaces. It can be noted though that as future growth areas are annexed, the amount of natural recharge may increase. The UWMP estimated a total of 24,970 AFY of natural recharge for 2020, and projects that natural recharge will total 26,280 AFY in the General Plan buildout year of 2035, and 26,790 AFY by 2045 assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA.⁶

Subsurface recharge occurs from the movement of groundwater from external sources into the local aquifer. Subsurface water tends to flow from surrounding areas with a higher groundwater table than the City's into the aquifer within the City SOI, including the Plan Area. It is likely that the subsurface inflow will increase with future annexation and development as the SOI is built out. Per the 2020 UWMP, net annual subsurface inflow into the City SOI was determined to be 64,800 AFY for the period of 1964-2004. The UWMP estimated a total subsurface inflow for 2020 of 47,510 AFY and projects that the total will reach 54,720 AFY in 2035 and 59,530 AFY in 2045 assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA.⁶

Intentional recharge occurs by directing surface water into the underground aquifer with the use of groundwater recharge basins or wells. Fresno mainly uses recharge basins, which are located throughout the City, in an effort to offset declining groundwater levels and overdraft conditions. The City's primary recharge facility is Leaky Acres, located northwest of the Fresno–Yosemite International Airport. It consists of 26 basins covering approximately 225 acres. Additionally, the City has agreements with the FMFCD and the FID to utilize their facilities (basins, canals, etc.) for additional groundwater recharge activities. According to the 2020 UWMP, the City recharged an average of approximately 60,000 AFY from 2000 to 2019. However, the amount has not historically been consistent and can fluctuate based on available surface water. This amount dropped to 34,700 AFY in 2014 and to 19,800 AFY in 2015. In 2019 though, the City recharged 82,993 AF, the highest

⁵ Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan., July.

⁶ Ibid.

amount within this measurement period. Over the last 5 years, the City has averaged at least 60,000 AFY in recharge and will plan on increasing the amount gradually by 540 AFY each year moving forward when possible. During wet years, the City will recharge more water when it is available to help offset potential increased reliance on groundwater during dry years. The UWMP projects a total recharge volume of 60,000 AF starting in 2020 and increasing to 68,100 AFY in 2035 and 73,500 AFY in 2045 during normal water years.⁷

The total groundwater recharge amount for 2020 was 132,480 AFY (24,970 AFY of natural recharge, 47,510 AFY of subsurface inflow, and 60,000 AFY of intentional recharge); the total projected groundwater recharge amount for 2035 is 149,100 AFY (26,280 AFY of natural recharge, 54,720 AFY of subsurface inflow, and 68,100 AFY of intentional recharge) and for 2045 is 159,820 AFY (26,790 AFY of natural recharge, 59,530 AFY of subsurface inflow, and 73,500 AFY of intentional recharge) during normal water years and assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA. Groundwater pumping has been greatly reduced since the activation of the first SWTF in 2004 and has only further declined as a result of a second SWTF; per the 2020 UWMP, groundwater pumping has decreased from 165,200 AFY in 2003 to 55,000 AFY in 2020.⁸ Surface water has allowed the City to reduce its dependance on groundwater as a water supply. Prior to 2004, 100 percent of Fresno's water demand was met with groundwater. In 2004, the City's first SWTF, the Northeast Surface Water Treatment Facility (NESWTF), was constructed and activated; it provided 10-15 percent of the City's potable water demand from 2005-2014 and 15 percent from 2016-2020. With the addition of the T-3 Water Storage and modular SWTF (T-3 SWTF) in 2015 and the Southeast Surface Water Treatment Facility (SESWWF) in 2018, the City was able to provide greater than 50 percent of its potable water supply with surface water in 2019 and 2020.⁹ The City plans on expanding surface water treatment capacities and groundwater recharge activities to maintain the reduction in groundwater reliance.

Surface Water Supply

As stated in the Groundwater Supply section, the City owns and operates two main SWTFs in Fresno. In 2004, the City commissioned the NESWTF. The facility, located at Chestnut and Behymer Avenues, is designed for a 30-mgd capacity and is planned to be expanded to a total of 60 mgd as development in Fresno continues.¹⁰ The NESWTF has reduced the City's dependance on groundwater and allowed an increased degree of groundwater recharge to occur. The City also constructed the T-3 SWTF in 2015 in southeast Fresno, which has a design capacity of 8 mgd.

Most recently, the City completed construction of the SESWTF in 2018, which is a 54-mgd facility with an ultimate capacity of 80 mgd.¹¹ This included a 72-inch raw water transmission main to convey surface water from the FID's Fresno Canal to the SESWTF. T-3 was shut down after the SESWTF was activated; however, the City has indicated that there are future plans to reactivate the site.

⁷ Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan July

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

The surface water available to the City is supplied via agreements that the City maintains with the United States Bureau of Reclamation (USBR) and the FID.

In the 1960s, the City contracted with the USBR Central Valley Project (CVP) Friant Division to receive 60,000 AF of Class 1 surface water per year. Per the 2020 UWMP, this agreement was last renewed in 2010 to provide water from the San Joaquin River in perpetuity.¹² The USBR CVP Friant Division facilities include the Friant Dam (Millerton Reservoir), the Friant-Kern Canal, and the Madera Canal. Class 1 water (intended to be a supply that would be dependable every year regardless of the type of hydrologic water year) has historically been very reliable until the 2006 San Joaquin River Restoration Settlement Agreement; projected availability of surface water to the City is determined by the USBR based on simulations for the 2006 settlement agreement, with an average simulated delivery of 53,680 AFY and a median simulated delivery of 60,000 AFY. However, there have been extremely dry years in which no water is supplied; this previously occurred in 2014 and 2015. The most recent data available for USBR deliveries shows that in 2020, the City received 37,447 AF.¹³

The City signed an agreement with FID in 1976 for the delivery of surface water supplies from the Kings River based on the City's pro rata share of FID's water entitlements. The agreement pertained only to natural flows in the Kings River and excludes Class 2 entitlement water provided to FID by the USBR, as well as water stored in Pine Flat Reservoir. The agreement identifies the City's contracted percentage of FID's King's River water based on the City's water service area located within FID's service area as a percentage of the FID land area. FID land area varies each year because it is dependent upon the acreage receiving water deliveries that year rather than the total acreage within FID. Thus, as the City incorporates new land areas (including SEDA) into its service area, the percentage of FID supply will increase. However, the most recent agreement with FID made in 2016 placed a maximum percentage of FID water at 29 percent, even though the City's service area is expected to surpass 29 percent of FID's service area between 2025 and 2030.¹⁴ In 2020, the City's percentage of FID water was 25.79 percent. The City has historically not used all of its available allocation in any given year, and the remaining unused water is reallocated by FID to its other customers. The average FID delivery between 1964 and 2019 was 452,541 AF, which equates to an average potential City supply of 131,237 AF, assuming the maximum 29 percent City supply percentage.¹⁴ The average total FID water supply from the King's River is 453,800 AFY, and by buildout, the 2020 UWMP projects that the City will be projected to receive 131,600 AFY. The most recent data available shows that in 2020, the City received 71,292 AF. Nonetheless, potential impacts to water supply and demand would be evaluated prior to the annexation of specific parcels is approved.

The City also has maintained another agreement with FID since 1974 for the exchange of recycled water for surface water. The Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF) discharges secondary-treated wastewater into recharge basins surrounding the facility for percolation into the groundwater aquifer. The RWRF owns and operates a number of groundwater wells that extract the percolated water from under the RWRF. As part of this agreement, the extracted water is conveyed to FID's Dry Creek and Houghton Canals for delivery to growers west of

¹² Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan. July.

¹³ Ibid.

¹⁴ Ibid.

the City. In exchange, FID agreed to deliver 46 percent of the total from either its Kings River entitlement or USBR Class 2 supply to growers or basins in the eastern portion of FID “insofar as is feasible and practical.” The agreement includes a minimum of 100,000 AF delivered over a 10-year period and no more than 30,000 AF in any given year.¹⁵ Since 2016, the City has reduced RWRF groundwater exchange deliveries and is currently discussing an update to the agreement with FID, while exploring other beneficial uses for the RWRF’s percolated effluent. Per the 2020 UWMP, the most recent data available shows that in 2020, 5,809 AF was delivered.¹⁶

Project Site

The City Metropolitan Water Resources Management Plan (Metro Plan) and UWMP include several objectives, goals, and policies to improve and develop water infrastructure as development progresses in the City. The critical focal points of the water system development are the implementation of further water conservation measures, installation of new municipal groundwater wells, increased groundwater recharge efforts to bring the City’s groundwater pumpage into balance with its recharge rate, maximized use of available surface water, increased use of recycled water for landscape irrigation and other nonpotable uses, and the acquisition of future water supplies when available.

Water supply for the Specific Plan Area will be met with existing supplies initially but will require additional supplies to meet buildout demands. The City is developing an update to the Metro Plan, which will include revised and updated recommendations for water supply facilities to supply the Plan Area with water. Among these proposed improvements are new municipal groundwater wells to be drilled in the Plan Area to supply new developments with groundwater.¹⁷

The City will also construct expansions to the SWTFs to allow higher capacities of surface water to be treated and delivered to City customers, including those in the Plan Area, as well as multiple recharge inter-ties to FMFCD basins to facilitate groundwater recharge in the Plan Area.

Recycled Water

Recycled water, an important water source for the City in conserving potable water supplies, is not yet utilized in the Plan Area. However, there are existing recycled water facilities throughout the City that may contribute to the future delivery of recycled water to the Plan Area.

With the completion of various portions of the City’s recycled water distribution system, and the upgrades at the Fresno-Clovis RWRF to allow disinfected tertiary treatment of collected wastewater, the City has been using recycled water for beneficial uses in an effort to reduce reliance on potable water for nonpotable uses. Disinfected tertiary treated wastewater can be used for a number of nonpotable uses, including but not limited to landscaping irrigation, industrial processes, golf course irrigation, and agricultural irrigation.

¹⁵ Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan. July.

¹⁶ Ibid.

¹⁷ Buche, Brock. Department of Public Utilities Director, City of Fresno. Personal communication: email. May 23, 2022.

Recycled Water Source and Supply

In partnership with the City of Clovis, the City of Fresno owns and operates the Fresno-Clovis RWRF located near the intersection of Jensen and Cornelia Avenues in southwest Fresno. The RWRF receives and treats the majority of domestic, commercial, and industrial wastewater generated within the Cities of Fresno and Clovis, as well as some unincorporated areas of Fresno County. The RWRF is currently operated by the City, who holds responsibility for ensuring regulatory compliance with Waste Discharge Requirements (WDRs) and the Central Valley Regional Water Quality Control Board (RWQCB) Order No. 5-01-254, “Waste Discharge Requirements for Cities of Fresno and Clovis Wastewater Treatment Facility, Fresno County.”

The RWRF has a rated annual monthly average daily discharge flow of 80 MGD and an maximum monthly average daily discharge flow of 88 MGD,¹⁸ but the average annual flow is approximately 68 mgd.¹⁹ The RWRF produces undisinfected secondary-treated wastewater and disinfected tertiary treated wastewater. The undisinfected secondary-treated wastewater is disposed of into on-site disposal ponds and conveyed to farmers for restricted irrigation of non-food crops on agricultural land on surrounding properties. The City also allows the secondary-treated wastewater to percolate through the soil into the aquifer, which is then extracted for delivery through FID facilities for agricultural users, as stated in the Water Supply section.

The disinfected tertiary treated wastewater is delivered through a network of pipelines to various recycled water use areas around the City, mainly for irrigation of landscaping at sites including, but not limited to, parks, median landscape strips, and cemeteries.

The City also owns and operates the North Fresno Wastewater Reclamation Facility (NFWRF) located in northeast Fresno on the north side of Copper Avenue between Cedar and Maple Avenues. This facility receives and treats wastewater generated within a small area of the City generally bound by Copper, Friant, and Willow Avenues, including wastewater generated from Copper River Ranch. The NFWRF is a tertiary level treatment facility and the treated wastewater is mainly used for irrigation of the Copper River Country Club and Golf Course. The permitted capacity of the plant is 0.71 mgd average monthly flow and 1.07 mgd maximum daily flow.²⁰

Flows received at the Fresno-Clovis RWRF have averaged approximately 63,000 AFY over the last 5 years, and the City projects that recycled water deliveries will increase to 5,800 AFY per year of nonpotable demand.²¹ These supplies will continue to help reduced potable water demand and lend themselves to water conservation efforts.

¹⁸ City of Fresno, “Engineering Report for the Production, Distribution and Use of Recycled Water,” prepared by Blair, Church & Flynn. September 18, 2015.

¹⁹ City of Fresno, Department of Public Utilities. Wastewater Facilities and Infrastructure, Fresno/Clovis Regional Wastewater Reclamation Facility (RWRF). Website: <https://www.fresno.gov/publicutilities/sewer-wastewater/wastewater-facilities-infrastructure/#tab-2>. Accessed April 8, 2022.

²⁰ City of Fresno, Department of Public Utilities. Wastewater Facilities and Infrastructure, North Fresno Wastewater Reclamation Facility (NFWRF). Website: <https://www.fresno.gov/publicutilities/sewer-wastewater/wastewater-facilities-infrastructure/#tab-3>. Accessed April 8, 2022.

²¹ Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan. July.

Recycled Water Demand and Use

The primary use of recycled water in Fresno is that of irrigation. The undisinfected secondary-treated wastewater produced by the Fresno-Clovis RWRF is used to irrigate non-food crops in the areas adjacent to the facility and is discharged into on-site basins for percolation to the aquifer and subsequent extraction for use by FID customers for irrigation. The disinfected tertiary treated wastewater produced by the RWRF is used to irrigate landscape for users served by the City's recycled water distribution system. The disinfected tertiary treated wastewater produced by the NFWRF is used to irrigate the nearby Copper River golf course.

Recycled water use has varied over the last few years due to fluctuations in the number of customers utilizing recycled water services. Per the 2020 UWMP, total recycled water use in 2020 was 4,757 AFY (3,845 AFY of undisinfected secondary-treated wastewater for non-food crop irrigation, 858 AFY of disinfected tertiary treated wastewater from the Fresno-Clovis RWRF, and 54 AFY of disinfected tertiary treated wastewater from the NFWRF), with an average from 2015 to 2020 of 6,568 AFY.²²

Undisinfected secondary-treated wastewater reuse is projected to continue to be used to irrigate non-food crops adjacent to the RWRF for the foreseeable future. It is predicted that disinfected tertiary treated wastewater use will increase as the City's recycled water distribution system continues to be built out and the number of customers increases. The use of recycled water for the Copper River golf course is assumed to remain constant through buildout of the City's General Plan. Per the 2020 UWMP, recycled water use is projected to be 14,220 AFY in any given year from 2025 through buildout of the City's General Plan, comprised of 7,900 AFY of secondary undisinfected recycled water for use as agricultural irrigation, and 6,320 AFY of tertiary treated recycled water to be used for landscape irrigation and limited agricultural irrigation (5,800 AFY for landscape irrigation excluding golf courses, 410 AFY for limited agricultural irrigation, and 110 AFY for golf course irrigation).²³ As noted in the UWMP, recycled water for agricultural irrigation does not offset the City's potable water demands, and as such is excluded from projected recycled water. Thus, the total projected recycled water available to offset potable water demands is 5,910 AFY (5,800 AFY for landscape irrigation excluding golf courses, and 110 AFY for golf course irrigation).

Recycled Water Distribution

Since the adoption of the City's Recycled Water Master Plan in 2010, a number of recycled water facilities have been constructed and are currently in service throughout the Fresno area. Segments of the recycled water distribution system outlined in the Recycled Water Master Plan have been designed and constructed over the last several years, mainly within the southwest quadrant of the distribution system as well as some small portions of the Northeast and Northwest systems. The southwest quadrant of the recycled water system includes a 3.2 million gallon recycled water reservoir at the RWRF, a 6,000 gallons per minute (gpm) (8.64 mgd) recycled water pump station located at the RWRF, a 640 gpm booster pump station at Roeding Park, and 15.7 miles of 10-inch to 54-inch recycled water pipeline; approximately 7.5 miles of pipeline remain to be constructed as part of the southwest quadrant.²⁴

²² Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan. July.

²³ Ibid.

²⁴ Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan. July.

Project Site

Recycled water is not yet utilized in the Plan Area; however, Master Plan documents include proposed improvements to facilitate the availability of recycled water in the Plan Area.

Two alternatives for recycled water supply and distribution systems were presented in the Recycled Water Master Plan,²⁵ both with proposed improvements that provided a path to conveying recycled water to the Plan Area. The first alternative was based on the idea that the Fresno-Clovis RWRf would be the main source of recycled water for the City and would supply recycled water to all four quadrants of the recycled water distribution system via numerous pipelines and pump stations. The second alternative assumed that a number of satellite recycled water facilities would be built around the City to assist in providing recycled water supplies, thereby alleviating the Fresno-Clovis RWRf of the requirement to supply the entire system.

The Southeast Quadrant includes southeast Fresno and the Plan Area. Alternative 1 of the Master Plan included backbone piping only up to the intersection of Butler and Fowler Avenues, stopping short of the Plan Area. Alternative 2 included backbone piping leading to a proposed satellite recycled water facility (wastewater scalping facility) near the intersection of North and Temperance Avenues, within the limits of the Plan Area. Per the Engineering Report prepared by Blair, Church & Flynn,²⁶ it would appear that Alternative 2 is the recommended option. The construction of a satellite facility within SEDA would allow the area to be self-sustaining and provide a path for wastewater collection and treatment that would directly benefit the Plan Area. However, the City is still analyzing the two alternatives presented in the Recycled Water Master Plan as well as other options for use of recycled water in the Plan Area.

Per the Recycled Water Master Plan, urban reuse provides the City with the best opportunity to implement recycled water projects that directly offset potable water and are highly visible to the community. However, urban reuse is much more distribution system-intensive than other alternatives, like groundwater recharge, since potential recycled water users are spread out around the City. The Recycled Water Master Plan recommended aligning the distribution system to serve large water users first to ensure efficient use of the recycled water supply. Smaller users can then be connected to the main distribution system at a later time.

The Recycled Water Master Plan includes assumptions of recycled water capacities and demands for each quadrant of the distribution system based on whether they were supplied via the RWRf or satellite Regional Wastewater Facilities (RWFs) (Alternative 1 versus Alternative 2, respectively). The Southeast Quadrant was projected to have a treatment capacity of 2.8/5.1 mgd (2.8 mgd without residential or commercial reuse/5.8 mgd with residential and commercial reuse) for Alternative 1 and 3.0 mgd for Alternative 2, and a demand of 995/1,820 AFY for Alternative 1 and 951 AFY for Alternative 2.²⁷ It should be noted that the Master Plan Alternative 1 does not include any delivery of recycled water to the SEDA area, and thus the demands presented are not accurate for planning purposes. Alternative 2 includes the proposed satellite facility potentially located within SEDA

²⁵ Carollo Engineers. 2010. City of Fresno Recycled Water Master Plan. December.

²⁶ Blair, Church & Flynn Consulting Engineer, Inc. 2015. Engineering Report for the Production, Distribution and Use of Recycled Water. September.

²⁷ Carollo Engineers. 2010. City of Fresno Recycled Water Master Plan. December.

boundaries, which thus could be used in estimating demands. However, the timeline for recycled water development within the Plan Area has not been fully developed, and thus updates to the Recycled Water Master Plan are required to determine the extent to which recycled water would be available to the SEDA users.

Water Demand and Use

The previous version of the UWMP (2015) established baseline daily per capita water use values for a 10-year and 5-year average, as well as a 2020 target for per capita water use. The 2020 target was based on the requirements of SB x7-7 for a reduction in urban per capita water use Statewide by 20 percent. Per the 2020 UWMP, the 10-year baseline per capita water use (from 1999-2008) was 309 gallons per capita per day (GPCD), and the 5-year baseline per capita water use (from 2003-2007) was 304 GPCD.²⁸ The confirmed 2020 target per capita water use was 247 GPCD; the actual per capita water use for the City in 2020 was 198 GPCD, meeting and exceeding the 2020 target. Water use reduction can be accredited to substantial water conservation measures and the metering of all water services served by the City system.

The City breaks its water usage into five customer classes: single-family residential, multi-family residential, commercial/institutional, industrial, and landscape irrigation. Per the 2020 UWMP, total water consumption for the City was 121,993 AFY in 2020 (60,065 AFY for single-family residential, 18,842 AFY for multi-family residential, 16,971 AFY for commercial/institutional, 5,729 AFY for industrial, 10,478 AFY for landscape irrigation, 340 AFY for travel meters, and 9,568 AFY for distribution system losses).²⁹ Single-family and multi-family residential are historically the largest users of potable water in Fresno. The UWMP also presents projected water demands for the City. Projected total potable water demands are 154,210 AFY for 2035 and 167,947 AFY for 2045; projected total nonpotable water demands are 68,100 AFY for 2035 and 73,500 AFY for 2045.

Project Site

An analysis of the water demand for the Plan Area was completed as part of the Water Technical Study prepared for this Recirculated Draft PEIR (see Appendix F). The analysis was completed based on land use classifications proposed for the Plan Area and compared to the water demand for the Plan Area as defined in the General Plan. The total water demand for the Plan Area under General Plan conditions was obtained from the technical memorandum prepared for the City's General Plan Update MEIR.³⁰ The total water demand projected for the Plan Area under General Plan buildout conditions was found to be 21,843 AFY (19.5 mgd).

The analysis to determine the projected water demand for the Plan Area under the Specific Plan conditions was completed using updated water demand factors for the General Plan land use classifications,³¹ and correlating each land use water demand factor with the proposed SEDA Specific Plan land use classification. Each water demand factor was used in conjunction with the total area of each land use classification to determine a baseline projected water demand for the Plan Area under

²⁸ Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan. July.

²⁹ Ibid.

³⁰ West Yost Associates. 2013. Hydraulic Evaluation of the Proposed 2035 General Plan Land Use Update for the Master Environmental Impact Report. January.

³¹ Akel Engineering Group Inc. 2020. Water and Wastewater Unit Factor Update for Metropolitan Water Resources Management Plan Update. October.

the proposed Specific Plan. The projected water demand for the Plan Area under the Specific Plan was determined to be 19.83 mgd; this results in an increase in water demand from the General Plan of 0.33 mgd, or 1.7 percent. This increase can be considered minimal, and the existing and planned water supplies and facilities should be sufficient for the Plan Area.

Per the 2020 UWMP, total projected water demand for Fresno in 2035 is 222,310 AF (154,210 potable demand and 68,100 AF nonpotable demand), and total water supply for Fresno in 2035 is 346,610 AF (149,100 AF of groundwater, 191,600 AF of surface water [60,000 AF from USBR and 131,600 AF from FID], and 5,910 AF of recycled water).³² Excluding recycled water, the available water supply for potable use for Fresno in 2035 is 340,700 AF. A Water Supply Assessment (WSA) was prepared for the proposed Specific Plan and is included Appendix I. Per the WSA, there will be sufficient water supply to compensate for the 1.7 percent increase in water demand as a result of the Specific Plan. With the additional 0.33 mgd (370 AFY) of water demand for SEDA, the total water demand for Fresno in 2035 becomes 222,680 AFY, with a potable demand of 154,580 AFY. There will be sufficient water supply to compensate for the 1.7 percent increase in water demand as a result of the Specific Plan. See the prepared WSA for additional information.

Water Distribution

The City's water distribution system consists of approximately 1,800 miles of distribution pipeline ranging in size from 0.75-inch to 66 inches, 140,000+ service connections, 12,000+ fire hydrants, 18,000+ main line valves, and several booster pumps and storage tanks.

Generally, the Transmission Grid Mains (TGMs) convey water directly from municipal supply wells to customers, and Regional Transmission Mains (RTMs) convey water from surface water treatment plants to TGMs. TGM pipes range in size from 10 to 16 inches in diameter, and RTM pipes are 18 inches and larger. There is also a network of smaller distribution mains that serve individual customers via TGMs. Fire hydrants are located at regular intervals throughout the City and served from the same distribution mains as all other customers. Main line valves are located at regular intervals and are used to shut down and isolate sections of the distribution system for emergency repairs, regular maintenance, or replacement projects. These valves are also used to regulate flows between the pressure zones. Booster pump stations help maintain the pressure within the system. There are a number of other miscellaneous appurtenances associated with the distribution system designed to assist regular operation, including air release/vacuum breaker assemblies, blow-off valves, backflow preventers, and access manways.

Project Site

The City's Metro Plan includes a number of recommended improvements to the water distribution system to account for future development. As mentioned, the City is currently updating the Metro Plan. Per the City, some of the proposed improvements to the water distribution system in the Plan Area include: new water storage tanks and booster pump stations, the extension of the 48-inch diameter RTM in Olive Avenue, and new TGMs.³³

³² Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan. July.

³³ Buche, Brock. Department of Public Utilities Director, City of Fresno. Personal communication: email. May 23, 2022.

Wastewater

This section describes existing City wastewater collection infrastructure and treatment facilities, as well as existing and projected wastewater generation for the current General Plan and proposed Specific Plan.

Wastewater Collection System

The City owns, operates, and maintains the majority of the wastewater collection system that conveys wastewater to the Fresno-Clovis RWRf and all of the wastewater collection system that conveys wastewater to the NFWRF. The wastewater collection system serves Fresno and other participating agencies, including the County of Fresno, the City of Clovis, the Pinedale Public Utility District, and the Pinedale Water District. The area served by the City's collection system includes residential, commercial, and industrial uses. A majority of the City's wastewater is collected and conveyed to the RWRf for treatment, with a small portion being treated by the NFWRF. Wastewater service for Clovis is also provided by City facilities and the RWRf, however a small portion of Clovis is served by their own wastewater treatment facility. The Wastewater Management Division (WMD) of the City's Department of Public Utilities is responsible for the collection, conveyance, treatment, and reclamation of wastewater generated by users in the Fresno-Clovis Metropolitan Area.

The City's wastewater collection system consists of approximately 1,500 miles of gravity sewer lines ranging from 8 inches to 84 inches in diameter, 15 active lift stations, 1.7 miles of force mains, 23,000+ manholes, and 54 junction structures. The wastewater collection system primarily conveys wastewater via gravity flow from the northeast to the southwest, ultimately to the Fresno-Clovis RWRf. The system consists of pipe of varying material, with the majority being composed of either vitrified clay pipe (VCP) (56.2 percent of system piping) or polyvinyl chloride (PVC) pipe (30.8 percent of system piping).³⁴

Wastewater collection begins at each user/land type, in which a house branch connects the user to the wastewater collection system. The house branches (typically 4 to 12 inches in size) will normally connect to a sewer lateral (collection pipelines, typically 13 to 33 inches in size), which will convey wastewater to a main or trunk sewer (typically 34 inches or larger in size). Main or trunk sewers collect wastewater from a number of services as they make their way toward a treatment plant. Manholes are placed within runs of sewer mains at regular intervals to facilitate access for maintenance of the mains, as well as at changes in direction of the sewer main. Lift stations may be located strategically throughout the system to provide the necessary lift when the natural alignment of a gravity pipeline becomes inefficient (e.g., too deep or insufficient slope). The City has a number of monitoring stations that actively collect and log flow data for the wastewater system. Additionally, the City has many junction structures/special structures that can be used to control flow distribution between downstream sewers.

Since 1968, the City has administered a Mandatory Sewering Ordinance which is included in the City's Municipal Code (Section 6-303, "Sewer Connection Required"), which requires that all properties within the City's service area shall be connected to the City's sanitary sewer system if it is

³⁴ Carollo Engineers, and Blair, Church & Flynn Consulting Engineers, Inc. 2015. City of Fresno Wastewater Collection System Master Plan Update. September.

available, and all septic tank/cesspool systems shall be abandoned. A sewer system is considered “available” if a sewer main has been constructed and is available for use in a public street, alley, or right-of-way within 100 feet for the first unit plus 50 feet for each additional unit, to be measured along the public street, alley, or right-of-way from the nearest property line to the sewer main. Any existing development within the Plan Area currently served by a septic tank system will be required to connect to the future sewer mains constructed to serve the area within 3 years after the sewer system becomes available and pay all associated fees.

The most recent version of the Wastewater Master Plan is the Wastewater Collection System Master Plan Update (Wastewater Master Plan), completed in September 2015.³⁵ The Wastewater Master Plan is intended to be the guiding document in planning and implementing sewer system improvements to accommodate future growth to buildout of the General Plan. The Wastewater Master Plan includes in depth analysis of the existing and projected wastewater flows of the City based on the General Plan development buildout conditions and includes a number of proposed facilities to accommodate future development, including those for the Plan Area.

Under the Statewide General Wastewater Discharge Requirements for Sanitary Sewer Systems, the City was required to develop and maintain a Sewer System Management Plan (SSMP) to provide a mechanism to properly manage, operate, and maintain all parts of the sanitary sewer system with the goal of reducing and preventing sanitary system overflows (SSOs), which is a release of untreated or partially treated wastewater resulting in public exposure, regardless of whether the wastewater reaches waters of the United States or not, or wastewater backups into buildings and onto private property that are caused by blockages in the City’s portion of the sanitary sewer system. The City’s first SSMP was approved in 2009 and several revisions have been issued since; the latest revision was approved in 2019.³⁶

The City’s SSMP must:

- Establish the legal authority to prevent illicit discharges into its sanitary sewer system;
- Require that sewers and connections be properly designed and constructed;
- Ensure access for maintenance, inspection, or repairs for those portions of the lateral owned or maintained by the City;
- Limit the discharge of fats, oils, and grease and other debris that may cause blockages; and
- Enforce any violation of its sewer ordinances.

Project Site

The SEDA Specific Plan Area is referred to as an “Area of Change” in the Wastewater Master Plan (specifically as a “New Growth Area”) and is characterized as a growth area that will contribute to an expansion of the service area and increased wastewater flows.

³⁵ Carollo Engineers, and Blair, Church & Flynn Consulting Engineers, Inc. 2015. City of Fresno Wastewater Collection System Master Plan Update. September.

³⁶ City of Fresno Wastewater Management Division. 2019. Sewer System Management Plan. March.

Several new sewer pipelines were proposed to accommodate projected wastewater flows analyzed in the Wastewater Master Plan. These included a number of proposed sewer mains and related facilities for the Plan Area. These include a series of trunk sewers and laterals, as well as a satellite wastewater reclamation/scalping plant.

The proposed improvements for the Plan Area included in the Wastewater Master Plan were determined based on wastewater modeling and analysis of the General Plan buildout condition, which assumes full development of all developable sites within the General Plan boundary. The Wastewater Master Plan defined its study area boundary as the City's SOI as defined in the General Plan, which includes all land within the city limits (excluding the RWRF), County islands (unincorporated land surrounded by the City), and lands that are expected to be annexed by the City, which include the land beyond the outer city limits on all sides. The Wastewater Master Plan study area was intended to include the existing city limits and development that could occur through buildout of the City's General Plan. The proposed improvements in the Plan Area were developed to accommodate future growth as identified by the hydraulic analysis completed as part of the Wastewater Master Plan.

Long-Term Treatment Capacity Plans

In partnership with the City of Clovis, the City of Fresno owns and operates the Fresno-Clovis RWRF located near the intersection of Jensen and Cornelia Avenues in southwest Fresno. The RWRF receives and treats the majority of domestic, commercial, and industrial wastewater generated within the Cities of Fresno and Clovis, as well as some unincorporated areas of Fresno County. The RWRF is currently operated by the City, who holds responsibility for ensuring regulatory compliance with WDRs and the Central Valley RWQCB Order No. 5-01-254, "Waste Discharge Requirements for Cities of Fresno and Clovis Wastewater Treatment Facility, Fresno County." The City also owns and operates the NFWRF located in northeast Fresno on the north side of Copper Avenue between Cedar and Maple Avenues. This facility receives and treats wastewater generated within a small area of the City generally bound by Copper, Friant, and Willow Avenues, including wastewater generated from Copper River Ranch.

Wastewater is treated via primary (removal of materials that will float or settle) and secondary (biological processes to remove suspended and dissolved solids) treatment, after which it is deposited into infiltration ponds to allow percolation through the soil, serving as another level of treatment. The City operates federally mandated industrial pretreatment programs to prevent the introduction of pollutants into publicly owned treatment works that could impact the collection infrastructure and pass through to receiving waters. Industries are also billed for sewer service depending on the amount of water used or effluent discharged, and the strength of their wastewater measured as pounds of biochemical oxygen demand and pounds of total suspended solids. Reducing the strength of their wastewater to reduce sewerage costs becomes an incentive for industries to improve the water quality of their wastewater effluent.

Fresno-Clovis Regional Wastewater Reclamation Facility

The RWRF has a rated annual monthly average daily discharge flow of 80 MGD and an maximum monthly average daily discharge flow of 88 MGD,³⁷ but the average annual flow is approximately 68 mgd.³⁸ The RWRF uses an activated sludge wastewater treatment process which produces undisinfected secondary-treated wastewater. Most of the treated wastewater is disposed into on-site disposal ponds for percolation through the underlying soils and into the groundwater basin. Some of the treated wastewater is also conveyed to farmers for restricted irrigation of non-food crops on agricultural land on surrounding properties. The RWRF also owns and operates a number of reclamation wells that extract water from on-site percolation ponds and discharges that water into FID canals for irrigation use of farmland downstream of the RWRF.

The RWRF also generates disinfected tertiary treated wastewater. The disinfected tertiary treated wastewater is delivered through a network of pipelines to various recycled water use areas around the City, mainly for irrigation of landscaping at sites including but not limited to parks, median landscape strips, and cemeteries.

North Fresno Wastewater Reclamation Facility

The NFWRF is a tertiary level treatment facility, and the treated wastewater is mainly used for irrigation of the Copper River Country Club and Golf Course. The permitted capacity of the plant is 0.71 mgd average monthly flow and 1.07 mgd maximum daily flow.³⁹

Wastewater Generation

Generally, wastewater consists of base wastewater flow and wet weather flow. Base wastewater flow is generated by routine water usage in the residential, commercial, business, and industrial sectors of the collection system. Wet weather flow includes stormwater inflow, trench infiltration, and wet weather ground water infiltration. Base wastewater flow also includes dry weather groundwater infiltration, which is groundwater that enters the sewer system when the relative depth of the groundwater table is higher than the depth of the pipeline and defects exist in the pipe, such as cracks, misaligned joints, or breaks which allows infiltration into the system. In Fresno, the depth to groundwater table is substantial, and therefore dry weather groundwater infiltration has little to no influence on the collection system.⁴⁰ Wet weather flow includes those flows listed above; the stormwater inflow and trench infiltration comprise the term “Infiltration and Inflow,” also known as I/I. Wet weather flow can also be affected by groundwater infiltration in that the groundwater table elevation may rise during storm events. As mentioned though, the depth to groundwater level in the City is very large and thus has no noticeable effect on wastewater flow.

³⁷ Blair, Church & Flynn Consulting Engineer, Inc. 2015. Engineering Report for the Production, Distribution and Use of Recycled Water. September.

³⁸ City of Fresno, Department of Public Utilities. Wastewater Facilities and Infrastructure, Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF). Website: <https://www.fresno.gov/publicutilities/sewer-wastewater/wastewater-facilities-infrastructure/#tab-2>. Accessed April 8, 2022.

³⁹ City of Fresno, Department of Public Utilities. Wastewater Facilities and Infrastructure, North Fresno Wastewater Reclamation Facility (NFWRF). Website <https://www.fresno.gov/publicutilities/sewer-wastewater/wastewater-facilities-infrastructure/#tab-3>. Accessed April 8, 2022.

⁴⁰ Carollo Engineers, and Blair, Church & Flynn Consulting Engineers, Inc. 2015. City of Fresno Wastewater Collection System Master Plan Update. September.

Base wastewater flows are diurnal in nature, taking on patterns of generation that depend on the type of use and hours of use. Commercial and industrial patterns typically have higher flows during business hours and lower flows at night, and weekend flow patterns may vary when compared to weekday flows.

I/I affects all sewer systems. Infiltration occurs when stormwater slowly seeps into the sewer system by percolating through the soil and entering through defects in the pipes, manholes, and joints. Inflow occurs when stormwater rapidly flows into the sewer system through more readily available entrances, such as storm drain cross connections, leaky manhole covers, illegal storm drain connections, and sewer cleanouts. I/I increases the flow volume and peak flows and can cause overflows if the sewer system is operating at capacity at the time of I/I occurrence. Per the Wastewater Master Plan, the City's wastewater collection system exhibits relatively low I/I as a whole, though some areas experience higher rates of I/I.

Per the Wastewater Master Plan, the peak wet weather flow (PWWF) is the highest observed hourly flow that occurs following the design storm event, and that the City's sewer and lift stations were evaluated based on their capacity to convey this flow, referred to synonymously as the "design flow." Analysis was also completed for the base wastewater flow. The Wastewater Master Plan indicates that the buildout base wastewater flow will be 129.9 mgd,⁴¹ and that the PWWF will be 202.4 mgd. The peak dry weather flow (PDWF) was also calculated as 164.7 mgd at buildout.⁴¹ The base wastewater flow, also known as the average dry wastewater flow, will be used for analysis of the General Plan and Specific Plan wastewater capacities presented in this report. The RWRf has a buildout capacity of 88 mgd.

Project Site

The proposed improvements for the Plan Area included in the Wastewater Master Plan were determined based on wastewater modeling and analysis of the General Plan buildout condition, which assumes full development of all developable sites within the General Plan boundary. The Wastewater Master Plan defined its study area boundary as the City's SOI as defined in the General Plan, which includes all land within the city limits (excluding the RWRf), County islands (unincorporated land surrounded by the City), and lands that are expected to be annexed by the City, which include the land beyond the outer city limits on all sides. The Wastewater Master Plan study area was intended to include the existing city limits and development that could occur through buildout of the City's General Plan. The proposed improvements in the Plan Area were developed to accommodate future growth as identified by the hydraulic analysis completed as part of the Wastewater Master Plan.

The land use assumptions in the Wastewater Master Plan were based on the General Plan and projected future developments within the City's proposed growth boundary. The Wastewater Master Plan includes wastewater flow factors that were established based on the average wastewater flow generated for each existing land use type in Fresno and calculated from the General Plan land use

⁴¹ Carollo Engineers, and Blair, Church & Flynn Consulting Engineers, Inc. 2015. City of Fresno Wastewater Collection System Master Plan Update. September.

classifications in gallons per day per acre (gpd/ac).⁴² These factors were used to project the estimated wastewater flow through buildout of the City's General Plan boundary and were used in the analysis of the Plan Area wastewater generation.

The technical analysis of the impacts of land use changes in the Plan Area was focused on comparing the change in wastewater flow generation from the General Plan land use case to the Specific Plan land use case to determine potential impacts to the wastewater collection system as completed in the Wastewater Technical Study (See Appendix I). The SEDA Specific Plan does not use the same land use classifications as defined in the General Plan and instead has developed SEDA-specific land use classifications. The SEDA-specific land uses are similar in nature to many of the General Plan land uses, and similarities can be drawn between the two land use categories. Thus, a number of reasonable assumptions were made to determine equivalent General Plan land uses for each SEDA-specific land use in order to utilize the wastewater flow factors for General Plan land uses previously established in the Wastewater Master Plan.

Total wastewater generations were determined by utilizing the wastewater generation rates in the Wastewater Master Plan, and the land use classification areas for the General Plan and the Specific Plan. The total wastewater produced by the Plan Area based on the General Plan case was compared to that of the Specific Plan case, resulting in the total change in wastewater generation for the Plan Area. The total General Plan base wastewater flow for the Specific Plan Area was found to be 9.86 mgd, and the Specific Plan base wastewater flow for the Specific Plan Area was found to be 11.32 mgd, resulting in an increase of wastewater flow of approximately 1.46 mgd, or 15 percent.

Stormwater

This section describes existing City of Fresno stormwater collection infrastructure, as well as existing and projected stormwater runoff for the current General Plan and proposed Specific Plan.

Generation and Collection

Stormwater runoff collection and disposal for the Fresno-Clovis Metropolitan Area is provided by the FMFCD. The FMFCD provides flood control within an approximately 400 square mile watershed in Fresno County, generally located between the Kings River and San Joaquin River, and extending up into the Sierra Nevada foothills. FMFCD also provides urban storm drainage, groundwater recharge, and recreation spaces in the Fresno-Clovis Metropolitan Area, as well as Clean Water Act (CWA) pollution prevention compliance assistance.

FMFCD's flood control program consists of a system of major facilities and operations that control flows from a number of low-elevation streams that drain a portion of the west slope of the Sierra Nevada between the San Joaquin and Kings Rivers. The system consists of numerous flood control facilities including various dams and reservoirs, as well as many related streams and channels. The FMFCD is responsible for flood control and stormwater planning and management; the District Services Plan (DSP)⁴³ provides comprehensive policies and implementation actions for flood control,

⁴² Carollo Engineers, and Blair, Church & Flynn Consulting Engineers, Inc. 2015. City of Fresno Wastewater Collection System Master Plan Update. September.

⁴³ Fresno Metropolitan Flood Control District. 2016. District Services Plan.

rural streams management, local stormwater drainage, stormwater quality management, water conservation, recreation, and related wildlife management. The FMFCD coordinates with cities and the County of Fresno via a framework provided in the Storm Drainage and Flood Control Master Plan (Storm Drain Master Plan), which is prepared by the FMFCD as a specific element within the general plan of each agency. The Storm Drain Master Plan identifies urban and rural drainage area boundaries, computes runoff flows based on planned land use, identifies facility size and location, establishes street grades necessary to accomplish drainage of the runoff from the point of origin to the nearest collector facility, and identifies natural channels requiring preservation.

Stormwater collection in the City is typically completed via FMFCD facilities. It begins with street gutters that collect and convey stormwater runoff to storm drain inlets. The runoff is collected in these inlets and delivered to FMFCD's pipe networks, pump stations, and infiltration basins for groundwater recharge. Most runoff is discharged into recharge basins, but during heavy rainfall events, excess runoff overflows into a system of relief channels and canals that discharge to the San Joaquin River, its tributary streams, local agricultural canals, and FID facilities.

The Storm Drain Master Plan divides FMFCD's service area into many local drainage areas of one to two square miles throughout the City. All inlets, pipes, and pump stations within each drainage area are maintained by the FMFCD. The gutters, along with public streets and sidewalks, are maintained by the City's Street Maintenance Division. It is assumed that this maintenance agreement will remain in place for the foreseeable future. The FMFCD's Storm Drain Master Plan includes 165 adopted or proposed drainage areas, with all but five areas served by a retention or detention facility. FMFCD basins have been sized for capacities not less than 60 percent of average annual runoff;⁴⁴ FMFCD allows a 20 percent change in volume before basins need to be resized or relocated.⁴⁵ Retention basins are designed to provide storage for up to 6 inches of rainfall on the drainage area watershed given typical runoff to rainfall ratios used for urban drainage design.

FMFCD pipes range in size from 15 to 108 inches, and basins range in size from 5 to 25 acres. The drainage areas are delineated along topographic boundaries and are limited in size from 200 to 600 acres. This size limitation helps reduce the size requirements of the collection and disposal facilities.

FMFCD utilizes three means to implement drainage systems for the Metropolitan Area. One method is the use of Community Block Grants from the federal and State governments and low interest infrastructure loans from the State of California to construct drainage facilities in the older, previously developed areas of the City. A second method is to form assessment districts under the provisions of the 1915 Bond Act; assessment districts were formed based on drainage area boundaries, the parcels within the assessment districts were assessed a proportional share of the cost of the collection and disposal system, and the drainage system for the drainage area was constructed. The third and currently employed method is to collect drainage fees from parcels as they develop based on their prorated share of the cost of the drainage area collection and disposal systems. The implementing ordinance for the drainage fee structure is adopted by the City, and the drainage fees are collected by the City when entitlements are granted or building permits are issued.

⁴⁴ Fresno Metropolitan Flood Control District. 2016. District Services Plan.

⁴⁵ Placeworks. 2017. Southwest Fresno Specific Plan Environmental Impact Report. August.

FMFCD is also a primary participant in groundwater recharge for the City. Unlined retention basins provide recharge of both stormwater runoff and imported water from the San Joaquin River and Kings River. Through a cooperative agreement, the City uses FID canals to deliver allocated water from the San Joaquin and Kings Rivers to these basins for groundwater recharge.

Flood Control

FMFCD provides flood control measures on major creeks and waterways that drain to the City; these waterways include Big Dry Creek, Alluvial Drain, Pup Creek, Dog Creek, Redbank Creek, Mud Creek, and Fancher Creek. The flood control measures maintained are designed for the 0.5 percent exceedance interval (i.e., 200-year-return frequency) flood flow event, which include a series of dams and detention basins. These include the Big Dry Creek Dam, Fancher Creek Dam, Redbank Dam, Friant Dam, Alluvial Drainage Detention Basin, Pup Creek Detention Basin, Redbank Creek Detention Basin, Fancher Creek Detention Basin, and Big Dry Creek Detention Basin.

Project Site

In accordance with the Storm Drain Master Plan and other planning documents, the FMFCD is developing improvements for the Specific Plan Area for storm drain facilities. The Specific Plan Area encompasses all or part of the following existing drainage areas: BG, BL, BM, BS, CS, DS and, DV. Proposed drainage areas for SEDA include DT, DU, DW, DX, DY, and DZ. Most of the existing drainage areas include existing storm drain collection facilities, while the proposed drainage areas generally have no existing storm drain facilities. Areas DS and DV are the exceptions in that they are existing drainage areas with basins but have not yet been built out to Master Plan conditions.

FMFCD improvements include storm drain inlets and piping, which are being analyzed and developed in conjunction with the proposed land uses within the Plan Area. Those portions of the Plan Area encompassed in existing drainage areas include master planned utilities designed by FMFCD.

There are seven existing basins contributing to stormwater collection for the Plan Area, and six proposed basins within the Plan Area. There are also two existing basins outside of the Plan Area that are not part of existing drainage areas, including the Redbank Basin and the Fancher Creek Basin, that may contribute to additional drainage capacity; however, these two basins were not considered in the analyses completed as part of the Storm Drain Technical Study (Appendix I). FMFCD basins are designed for a capacity not less than 60 percent of average annual runoff. Per the FMFCD, the proposed drainage areas for SEDA have not been adopted yet and the basin locations have not been finalized; those presented here have been placed by FMFCD staff.⁴⁶ The Specific Plan must be analyzed and evaluated for impacts on the aggregate area and each planned basin area.

An area's runoff rate and volume are heavily affected by the amount of impervious surfaces within the area. Imperviousness is directly related to the type of land use and can either positively or negatively affect an area's drainage capabilities with a change in impervious surfaces. A common characteristic that can define an area's imperviousness, i.e., its ability to handle drainage during storm events, is its Equivalent Area, also known as the CA value. An area's CA value is the product of

⁴⁶ Wade, Denise. FMFCD Master Plan Special Projects Manager, FMFCD. Personal communication: email. February 22, 2022.

a unique runoff coefficient (C) and its area (A). Runoff coefficients vary based on land use depending on a perceived level of imperviousness, i.e., areas with higher levels of impervious surfaces (e.g., shopping centers) will have higher runoff coefficients than those with less impervious surfaces (e.g., rural residential areas).

The analysis completed in the Storm Drain Technical Study compared the CA value of each existing and proposed drainage area within SEDA between the General Plan Land Uses and the SEDA Specific Plan Land Uses. For the General Plan land use analysis, the FMFCD’s “Recommended Design C-Factors for the City of Fresno” was used, and a set of preliminary C-values developed for SEDA land uses by FMFCD were used in completing the SEDA Specific Plan analysis. See the Storm Drain Technical Study for a full explanation of the analysis process and subsequent results.

The total runoff volume was determined for each drainage area under the General Plan and Specific Plan. In general, all drainage areas experienced some amount of increase in runoff volume. The proposed Specific Plan resulted in a total increase in stormwater runoff of 248 AF (23 AF of additional runoff to existing drainage areas, and 225 AF of additional runoff to proposed drainage areas). None of the existing basins experienced an increase of more than 20 percent, and all existing basins have sufficient capacity to accommodate the increase in runoff.

With regards to the proposed basins, there are two basins of concern – Basin DW and Basin DX. Basin DW experiences a 16.2 percent increase in runoff volume, and while this does not exceed the 20 percent threshold, it does exceed the available volume of the proposed basin by 12.8 AF, meaning that FMFCD will need to reevaluate Basin DW’s capacity. The total runoff volume for Basin DX increased by 25.4 percent, which exceeds the 20 percent threshold. FMFCD will need to reevaluate either the basin’s size or location to accommodate this increase in runoff.

Solid Waste

Solid Waste Collection

The City diverts a majority of its solid waste away from landfills and into recycling and composting programs. Diversion conserves limited landfill space, keeps toxic chemicals and materials from contaminating landfills, and enhances the reuse of materials. A Council resolution commits the City to the goal of Zero Waste by the year 2025. The City’s Construction and Demolition Ordinance requires that the recycling of construction and demolition is required for any City-issued building, relocation or demolition permitted project that generates at least 8 cubic yards of material by volume and all waste must be hauled to a City-approved facility.⁴⁷

The City’s Solid Waste Division provides the following services: collection of residential and commercial solid waste, recyclables, and green waste throughout the community at least once a week; disposal of solid waste at the designated locations; provision and maintenance of containers; response to customer complaints/concerns; and provision of roll-off and compactor services to

⁴⁷ City of Fresno, Department of Public Utilities. Trash Disposal and Recycling, Multi-Family and Commercial Services, Construction and Demolition Waste. Website: <https://www.fresno.gov/publicutilities/trash-disposal-recycling/multi-family-commercial-services/#tab-3>. Accessed June 17, 2022.

residential customers. They also collect residential bulky goods through operation cleanup, as well as waste oil and waste oil filters.

In 2011, the City granted franchises for non-exclusive roll-off services to 16 roll-off companies for bins which were 10 cubic yards or greater. The City has also granted exclusive franchise agreements for the collection of commercial solid waste, recyclables and green waste to two franchises: Republic Services (formerly Allied Waste Services) is responsible for all commercial services north of Ashlan Avenue, and Mid Valley has all commercial locations south of Ashlan.⁴⁸ Both haulers are responsible for Commercial, Multi-family, and Industrial up to 8 cubic yards, which fall into City jurisdiction. Both City and non-exclusive/exclusive franchise haulers provide and maintain containers, respond to customer complaints/concerns, and provide roll-off and compactor services to residential, multi-family, and commercial customers respective to their agreements. Garbage disposed of in the City of Fresno is taken to Cedar Avenue Recycling and Transfer Station (CARTS). Once trash has been off-loaded to the transfer station, it is sorted and non-recyclable solid waste is loaded onto large trucks and taken to the American Avenue Landfill.

The City and Fresno County co-sponsor two household hazardous waste (HHW) drop-off events each year, one in the spring and one in the fall. Additionally, the County provides a door-to-door program that provides HHW pickup for individuals who, because of special circumstances, cannot participate in the HHW drop-off events.

Project Site

Solid waste collection in the Specific Plan Area will continue as currently planned for City residents, and collection routes will be extended to the Plan Area. Solid waste generation will increase with the buildout of the Specific Plan Area, and thus solid waste collection systems will need to accommodate this increase in demand for service.

All new developments will need to abide by the City's Construction and Diversion Ordinance. New developments may also need to create a Waste Management Plan per CALGreen requirements for on-site sorting of construction debris to be submitted to the City for approval.

Landfills

The American Avenue Landfill (American Avenue Disposal Site, Site Solid Waste Information System [SWIS] Number 10-AA-0009) is located approximately six miles southwest of Kerman. American Avenue Landfill is owned and operated by Fresno County and began operations in 1992 for both public and commercial solid waste haulers. The American Avenue Landfill is a sanitary landfill, meaning that it is a disposal site for non-hazardous solid waste spread in layers, compacted to the smallest practical volume, and covered by material applied at the end of each operating day.⁴⁹

⁴⁸ LSA. 2020. City of Fresno Program Environmental Impact Report. March.

⁴⁹ City of Fresno, Department of Public Utilities. Facilities & Infrastructure, American Avenue Landfill. Website: https://www.fresno.gov/publicutilities/facilities-infrastructure__trashed/american-avenue-landfill/. Accessed June 17, 2022.

The American Avenue Landfill has a maximum permitted capacity of 32,700,000 cubic yards and a remaining capacity of 29,358,535 cubic yards, with an estimated closure date of August 31, 2031. The maximum permitted throughput is 2,200 tons per day.⁵⁰

One other active disposal site is located in Fresno County. The City of Clovis Landfill (SWIS Number 10-AA-0004) has a maximum permitted capacity of 7,800,000 cubic yards and a remaining capacity of 7,740,000 cubic yards, with an estimated closure date of April 30, 2047. The maximum throughput is 2,000 tons per day.⁵¹

Green waste hauled by the residential solid waste operations is delivered to one of two locations: Earthwise/Green Valley Recycling located at 2365 North Avenue or West Coast Waste at 30777 Golden State Frontage Road, both of which are located within 0.25 mile of one another in southwest Fresno.

Commercial green waste and organics are delivered to Elm Avenue Recycling by Mid Valley and are then transferred to the Kerman facility and composted with organic compost, which is then used by organic farms in the region. Commercial green waste and organics being delivered by Allied Waste are taken to the Rice Road Transfer Station and trans-loaded into trucks to be delivered to Kochergen Farms for composting and land application.

Recycling collected by residential service is delivered to both CARTS and Elm Avenue Recycling. Both facilities have Material Recovery Facilities (MRFs) which sort through the co-mingled recycling stream of materials. Commercial franchises deliver recycling to Elm Avenue Recycling only. The City and franchise haulers continue to work with the California Department of Resources Recycling and Recovery (CalRecycle) to educate customers and refine the various waste streams.

Project Site

Solid waste service will be extended to the Plan Area, and similar collection processes will be followed to collect refuse and deliver it to the proper locations, whether that be to a landfill or other sorting facility. Solid waste generation will increase with the buildout of the Specific Plan Area, and thus solid waste collection facilities will need to accommodate this increase in demand for service.

Electricity, Natural Gas, and Telecommunications

Electricity

The State of California generates approximately 206,336 gigawatt-hours (GWh) of electricity. Approximately 43.0 percent of the energy generation is sourced from natural gas, 32.1 percent from renewable sources (i.e., solar, wind, and geothermal), 16.5 percent from large hydroelectric sources, and the remaining 8.4 percent is sourced from coal, nuclear, oil, and other nonrenewable sources.⁵²

⁵⁰ California Department of Resources Recycling and Recovery (CalRecycle). 2019. Solid Waste Information System. Website: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>. Accessed July 8, 2022.

⁵¹ Ibid.

⁵² California Energy Commission (CEC). 2022. 2019 Total System Electric Generation. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2020-total-system-electric-generation/2019>. Accessed June 30, 2022.

In 2022, California was the nation's top producer of electricity from solar and geothermal, and second in production of biomass energy. The State was fourth in the nation in conventional hydroelectric power generation and was the second-largest state overall in total electricity generation from renewable sources. In 2022, California was the fourth-largest electricity producer in the nation, and the third-largest electricity consumer among the states, but its per capita energy consumption was less than in all other states except Hawaii, due in part to its mild climate and its energy efficiency programs.⁵³

Electricity and natural gas are distributed through the various electric load-serving entities (LSEs) in California. These entities include investor-owned utilities (IOUs), publicly owned LSEs, rural electric cooperatives, community choice aggregators, and electric service providers.⁵⁴

End-use electricity and gas customers in Fresno County are served solely by Pacific Gas and Electric Company (PG&E) to meet electrical power demands. As of 2022, PG&E's portfolio contains 48 percent electricity generated from renewable sources.⁵⁵

The smallest scale at which electricity consumption information is readily available is the County level. Therefore, electricity consumption in Fresno County is used herein to generally characterize the City's existing electricity consumption. Fresno County includes several incorporated cities and a large unincorporated area. According to the California Energy Commission (CEC), Fresno County consumed approximately 8,378.0 GWh in 2021.⁵⁶

Natural Gas

Natural gas is used for everything from generating electricity to cooking and space heating to an alternative transportation fuel. In 2021, total natural gas demand in California for residential, commercial, industrial, vehicle fuel, and electric power generation was 2,033 billion cubic feet per year (BCF/year), up from 2,055 BCF/year in 2017. Demand in all sectors has fluctuated over the last few years due to the COVID-19 pandemic.⁵⁷

Natural gas-fired generation has become the dominant source of electricity in California, as it fuels about 45 percent of electricity consumption followed by hydroelectric power. Because natural gas is a resource that provides load when the availability of hydroelectric power generation and/or other sources decrease, use varies greatly from year to year. The availability of hydroelectric resources, the emergence of renewable resources for electricity generation, and overall consumer demand are the variables that shape natural gas use in electric generation.⁵⁸

⁵³ Energy Information Administration (EIA). 2022. California State Profile and Energy Estimates. Website: <https://www.eia.gov/state/?sid=CA>. Accessed June 26, 2023.

⁵⁴ California Energy Commission (CEC). 2019. Electric Load-Serving Entities (LSEs) in California. Website: https://www.energy.ca.gov/almanac/electricity_data/utilities.html. Accessed June 24, 2022.

⁵⁵ Pacific Gas and Electric Company (PG&E). 2020. Corporate Responsibility and Sustainability Report.

⁵⁶ California Energy Commission (CEC). 2020. "Electricity Consumption by County." Website: <https://ecdms.energy.ca.gov/electricbycounty.aspx>. Accessed June 23, 2023.

⁵⁷ United States Energy Information Administration (EIA). 2022. Natural Gas Consumption by End Use. Website: https://www.eia.gov/dnav/ng/NG_CONS_SUM_DCU_SCA_A.htm. Accessed June 26, 2023.

⁵⁸ California Energy Commission (CEC). 2022. Supply and Demand of Natural Gas in California. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california>. Accessed June 26, 2023.

The City 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 Fresno County is used herein to also characterize the City's existing natural gas consumption. According to the CEC, Fresno County consumed approximately 318.9 million U.S. therms of natural gas in 2021, or approximately 31,890 billion BTU.⁵⁹

Telecommunications

Various telecommunications companies provide internet and cellular service in the City of Fresno, including Xfinity, AT&T, Earthlink, Unwired, and Frontier.⁶⁰

Project Site

Electrical, natural gas, and telecommunications services will be extended to the Plan Area, and be served by the same suppliers. New utility facilities will be required to accommodate the increase in demand for service resulting from future development in accordance with the Specific Plan.

3.18.3 - Regulatory Framework

Federal

Water, Recycled Water, Wastewater, and Storm Drainage

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 (42 United States Code [USC] § 300f *et seq.*). 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 CWA, regulates the discharge of pollutants into watersheds throughout the nation (33 USC § 1251 *et seq.*). Under the CWA, the EPA implements pollution control programs and sets wastewater standards.

The National Pollutant Discharge Elimination System (NPDES) permit program was established within the CWA to regulate municipal and industrial 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

⁵⁹ California Energy Commission (CEC). 2020. Gas Consumption by County. Website: <https://ecdms.energy.ca.gov/gasbycounty.aspx>. Accessed June 23, 2023.

⁶⁰ Top 5 Internet Service Providers Fresno. Website: <https://www.highspeedinternet.com/ca/fresno>. Accessed June 30, 2022.

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.

Energy

Energy Independence and Security Act

The Energy Policy Act of 2005 created the Renewable Fuel Standard program (2 USC § 13201 *et seq.*) The Energy Independence and Security Act of 2007 (EISA) (Public Law 109-58. 42 USC §13201 *et seq.*) expanded this program by:

- Expanding the Renewable Fuel Standard program to include diesel in addition to gasoline;
- Increasing the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;
- Establishing new categories of renewable fuel, and setting separate volume requirements for each one; and
- Requiring the EPA to apply lifecycle greenhouse gas (GHG) emissions performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

This expanded Renewable Fuel Standard program lays the foundation for achieving substantial reductions of GHG emissions from the use of renewable fuels, reducing the use of imported petroleum, and encouraging the development and expansion of the nation's renewable fuels sector.

Signed on December 19, 2007, the EISA aims to:

- Move the United States toward greater energy independence and security.
- Increase the production of clean renewable fuels.
- Protect consumers.
- Increase the efficiency of products, buildings, and vehicles.
- Promote research on and deploy GHG capture and storage options.
- Improve the energy performance of the federal government.
- Increase U.S. energy security, develop renewable fuel production, and improve vehicle fuel economy.

EISA reinforces the energy reduction goals for federal agencies put forth in Executive Order 13423, as well as introduces more aggressive requirements. The three key provisions enacted are the Corporate Average Fuel Economy Standards, the Renewable Fuel Standard, and appliance/lighting efficiency standards.

The EPA is committed to developing, implementing, and revising both regulations and voluntary programs under the following subtitles in EISA, among others:

- Increased Corporate Average Fuel Economy Standards
- Federal Vehicle Fleets
- Renewable Fuel Standard
- Biofuels Infrastructure
- Carbon Capture and Sequestration⁶¹

State

Water

California Water Code

The California Water Code, a section of the California Code of Regulations, is the governing law for all aspects of water management in California.

California Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), which was passed in California in 1969, the California State Water Resources Control Board (State Water Board) has the ultimate authority over State water rights and water quality policy (California Water Code Div. 7 § 13000 *et seq.*). The Porter-Cologne Act also established 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 requires that all urban water suppliers with at least 3,000 customers prepare UWMPs and update them every 5 years (California Water Code §§ 10610–10656, 10608). 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);

⁶¹ United States Environment Protection Agency (EPA). 2022. Summary of the Energy Independence and Security Act. Website: <https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act>. Accessed June 24, 2022.

- 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.

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 Bills 610 and 221

SB 610 and SB 221 (Water Code § 10910(c)(2)) 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.⁶² SB 610 and SB 221 seek to promote more collaborative planning between local water suppliers and cities and counties by requiring that detailed information regarding water availability be provided to decision-makers prior to approval of specified large development projects. SB 610 requires that detailed information be included in a WSA, which is then included in the administrative record that serves as the evidentiary basis for an approval action by a city or county. SB 221 requires that the detailed information be included in a verification of water supply. Under SB 610, WSAs must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code Section 10912(a)) subject to the California Environmental Quality Act (CEQA).

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 2020.⁶³ Under SBX7-7, urban retail water suppliers were required to develop water use targets and submit a water management plan to the 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 California Model Water Efficient Landscape Ordinance (MWELo) was adopted by the California Office of Administrative Law in September 2009 and requires local agencies to implement water efficiency measures as part of its review of landscaping plans.⁶⁴ Local agencies can either adopt the MWELo or incorporate provisions of the ordinance into its own code requirements for landscaping.

⁶² Senate Bill 610 Water Supply Planning, Chapter 643, Statutes of 2001, Costa; SB 221 Land Use: Water Supplies, Chapter 642, Statutes of 2001, Kuehl.

⁶³ Water Conservation Act of 2009, Senate Bill SB X7-7, Steinberg, 2009.

⁶⁴ Model Water Efficient Landscape Ordinance (MWELo), Title 23 CCR, Div. 2, Chap. 2.7 §490 et seq.

The County has not adopted a local ordinance, but the City has incorporated the requirements of the MWELo into their municipal code (Chapter 11, “Building Permits and Regulations,” and Chapter 15, “Citywide Development Code;” see Local Regulations section below).

California Groundwater Management Act of 1992

The California Groundwater Management Act (GWMA) was signed into law in 1992 and made groundwater management part of the California Water Code (California Water Code Division 6, Part 2.75, Chapters 1-5, §§ 10750-10755.4). First introduced as Assembly Bill (AB) 3030, the GWMA established specific procedures on how Groundwater Management Plans (GWMPs) are to be developed and adopted by local agencies. The intent of the GWMA is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a GWMP. The GWMA has since been modified by SB 1938 in 2002 and AB 359 in 2011.

- AB 3030 provided a systematic procedure for existing local agencies to develop GWMPs.
- SB 1938 modified the GWMA by requiring any public agency seeking State funds administered through the DWR for the construction of groundwater projects to prepare and implement a GWMP.
- AB359 further modified the GWMA by requiring public agencies to prepare and implement GWMPs with an additional required component that focused on identifying groundwater recharge areas. It also included several plan adoption procedural changes, requires GWMPs to be submitted to DWR, and requires DWR to provide public access to this information.

Sustainable Groundwater Management Act

SGMA includes a three-bill legislative package composed of AB 1739, SB 1168, and SB 1319 (Division 6, Part 2.74 §§ 10720-10737.8). SGMA requires local agencies to form GSAs for high and medium priority basins and develop and implement Groundwater Sustainability Plans (GSPs) to avoid and mitigate overdraft of groundwater within 20 years. SGMA places the authority of groundwater management with local agencies; it establishes a definition of sustainable groundwater management, establishes a framework for local agencies to develop plans and implement strategies to sustainably manage groundwater resources, prioritizes basins with the greatest problems, and sets a 20-year timeline for implementation.

CALGreen Building Code

The California Building Standards Commission (CBSC) adopted the nation’s first green building standards in 2008 (Title 25 California Code of Regulations [CCR] Part 11). The standards code was adopted to apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in the California Code of Regulations, throughout California. CALGreen established planning and design standards for sustainable site development including water conservation. CALGreen provisions became effective on January 1, 2011. The purpose of the CALGreen provisions is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of concepts

having reduced negative impact or positive environmental impact and encouraging sustainable construction practices.

California Plumbing Code

The California Plumbing Code serves to prevent disorder in the industry and to consolidate plumbing codes utilized by local jurisdictions to reduce confusion and conflicts among varying practices (Title 24 CCR Part 5). The California Plumbing Code covers water fixtures, potable and nonpotable water systems, and recycled water systems, among other topics. Recycled water supply and distribution shall comply with all applicable provisions of the current edition of the California Plumbing Code.

Recycled Water

State Water Resources Control Board Water Quality Control Policy for Recycled Water

The State Water Board adopted their Water Quality Control Policy for Recycled Water on December 11, 2018, and it became effective on April 8, 2019.⁶⁵ The policy was adopted to encourage the safe use of recycled water from wastewater sources that implement State and federal water quality laws and protects public health and the environment. It is designed to provide direction to the State and RWQCBs when issuing permits for recycled water projects; it describes the circumstances under which permittees may enroll under Statewide water reclamation requirements for recycled water use or choose an alternate permitting mechanism. The intent of the policy is to expedite the permitting of recycled water projects in a manner that implements State and federal water quality laws while allowing the RWQCBs to focus their resources on projects that require substantial regulatory review due to unique site-specific conditions.

Title 22, California Code of Regulations

Title 22 “Social Security,” of the California Code of Regulations contains a number of requirements and regulations for the production, distribution, and use of recycled water. This section of the California Code of Regulations includes numerous requirements for the use of recycled water. Recycled water intended for nonpotable reuse can be used in many ways depending on the level of treatment. Such uses include irrigation (parks, schools, roadway medians, etc.), cooling, impoundments, toilets, industrial processes, decorative fountains, structural firefighting, commercial laundries, etc. Areas that utilize recycled water must meet certain use area requirements included in Title 22, including proper marking of recycled water improvements and appropriate cross-connection facilities. Title 22 also includes provisions for dual use sites and required reporting and monitoring for all use cases. Any sites utilizing recycled water are required to meet all regulations and requirements of Title 22 of the California Code of Regulations.

Wastewater

Sanitary District Act of 1923

The Sanitary District Act of 1923 (California Health and Safety Code § 6400, *et seq.*) authorized the formation of sanitation districts and enforces the districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater. The Sanitary District Act was

⁶⁵ Water Quality Control Policy for Recycled Water, State Water Resources Control Board California Environmental Protection Agency. December 11, 2018.

amended in 1949 to allow the districts to also provide solid waste management and disposal services, including refuse transfer and resource recovery.

Storm Drainage

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) is mandated to evaluate flood hazards as a result of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. FEMA provides Flood Insurance Rate Maps (FIRMs) for local and regional planners to promote efficient land and floodplain development and to identify potential flood areas based on current conditions. The National Flood Insurance Program provides flood insurance to homeowners, renters, and businesses, and works with communities to adopt and enforce floodplain management regulations that help mitigate flooding effects. FEMA completes Flood Insurance Studies to delineate a FIRMs.

Statewide General Construction Permit

The State Water Board issued the General Construction Permit (GCP), Order No. 2012-0006-DWQ, which requires construction projects of one (1) acre or larger to file specific Permit Registration Documents with the State Water Board prior to beginning construction.⁶⁶ The documents include a Notice of Intent (NOI), risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. The SWPPP must include applicable Best Management Practices (BMP) to be enacted during construction to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. The SWPPP must also include a visual monitoring plan, a chemical monitoring program for nonvisible pollutants, and a sediment monitoring plan. The GCP also includes post-construction runoff reduction requirements.

Solid Waste

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, 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.

⁶⁶ California State Water Resources Control Board (State Water Board). Order No. 2012-0006-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. 2012.

Assembly Bill 341

In 2011, AB 341 was passed, which set a State policy goal of not less than 75 percent of solid waste that is generated to be source reduced, recycled, or composted by the year 2020, and annually thereafter. The bill requires all businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units to recycle/create a recycling program. CalRecycle was required to submit a report to the legislature by January 1, 2014, outlining the strategy to be used to achieve this policy goal. This bill affects local governments in that each jurisdiction is required to implement a commercial solid waste recycling program that consists of education, outreach, and monitoring of businesses. An annual report of the progress of such efforts is required by law. CalRecycle is responsible for reviewing each jurisdiction's commercial recycling program.

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act requires areas in development projects to be set aside for collecting and loading recyclable materials (Public Resources Code [PRC] 30 Part 3, Chapter 18). The California Solid Waste Reuse and Recycling Access Act requires CalRecycle to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, providing for adequate areas in development projects for the collection and locating of recyclable materials.

Global Warming Solutions Act of 2006, Scoping Plan

The California Global Warming Solutions Act of 2006 (also known as AB 32) Scoping Plan, which was adopted by the California Air Resources Board (ARB), included a Mandatory Commercial Recycling Measure. The Mandatory Commercial Recycling Measure focuses on diverting commercial waste as a means to reduce GHG emissions, with the goal of reducing GHG emissions by 5 million metric tons (MMT) of carbon dioxide equivalents (CO₂e), consistent with the 2020 targets set by AB 32. To achieve this objective, the commercial sector needed to recycle an additional 2 to 3 million tons of materials annually by the year 2020.

CalRecycle adopted this measure at its January 17, 2012, monthly public meeting. The regulation was approved by the Office of Administrative Law on May 7, 2012, and became effective immediately. On June 27, 2012, the Governor signed SB 1018, which included an amendment requiring both businesses that generate four cubic yards or more of commercial solid waste per week and multi-family residences with five or more units to arrange for recycling services. This requirement became effective on July 1, 2012.

CALGreen Building Code

The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices related to material conservation and resource efficiency (Title 24 CCR Part 11). The provisions of this code apply to the planning, design, operation, construction, use, and occupancy of every newly

constructed building or structure, unless otherwise indicated in this code, throughout the State of California.

Section 4.408, Construction Waste Reduction Disposal and Recycling, of the CALGreen Building Code mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged. CALGreen requires the applicant to have a Waste Management Plan for on-site sorting of construction debris, which is submitted to the City for approval.

The Waste Management Plan does the following:

- Identifies the materials to be diverted from disposal by recycling, reuse on the project, or salvage for future use or sale.
- Specifies if materials will be sorted on-site or mixed for transportation to a diversion facility.
- Identifies the diversion facility where the material collected can be taken.
- Identifies construction methods employed to reduce the amount of waste generated.
- Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.

Energy

California Senate Bill 1078: Renewable Electricity Standards

On September 12, 2002, former 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, former 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 LSEs to meet a 33 percent renewable energy target by 2020. The CARB Board approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23.

California Code of Regulations Title 24

California Code of Regulations, Title 24, Part 6 (California's Energy Efficiency Standards for Residential and Nonresidential Buildings) of the California Code of Regulations 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 2016 Building Energy Efficiency Standards went into effect on January 1, 2017.⁶⁷ The 2019 Building Energy Efficiency Standards went into effect on January 1, 2020.

⁶⁷ California Energy Commission (CEC). 2016. 2016 Building Energy Efficiency Standards Frequently Asked Questions.

California Public Utilities Code

The California Public Utilities Commission (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 customers from fraud; and (3) promote a healthy California economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the CPUC.

Local**Water***Fresno General Plan*⁶⁸

The City's General Plan contains the following goals, policies, and objectives relevant to the provision of water service and facilities:

Objective PU-3 Enhance the level of fire protection to meet the increasing demand for services from an increasing population.

Policy PU-3-f Adequate Infrastructure. Continue to pursue the provision of adequate water supplies, hydrants, and appropriate property access to allow for adequate fire suppression throughout the City.

Objective PU-8 Manage and Develop the City's water facilities on a strategic timeline basis that recognizes the long life cycle of the assets and the duration of the resources, to ensure a safe, economical, and reliable water supply for existing customers and planned urban development and economic diversification.

Policy PU-8-a Forecast Need. Use available and innovative tools, such as computerized flow modeling to determine system capacity, as necessary to forecast demand on water production and distribution systems by urban development, and to determine appropriate facility needs.

Policy PU-8-b Potable Water Supply and Cost Recovery. Prepare for provision of increased potable water capacity (including surface water treatment capacity) in a timely manner to facilitate planned urban development consistent with the General Plan. Accommodate increase in water demand from the existing community with the capital costs and benefits allocated equitably and fairly between existing users and new users, as authorized by law, and recognizing the differences in terms of quantity, quality and reliability of the various types of water in the City's portfolio.

Policy PU-8-c Conditions of Approval. Set appropriate conditions of approval for each new development proposal to ensure that the necessary potable water production and supply facilities and water resources are in place prior to occupancy.

⁶⁸ Dyett & Bhatia Urban and Regional Planners, Fresno General Plan. December 2014.

Policy PU-8-d CIP Update. Continue to evaluate Capital Improvement Programs and update them, as appropriate, to meet the demands of both existing and planned development consistent with the General Plan.

Policy PU-8-f Water Quality. Continue to evaluate and implement measures determined to be appropriate and consistent with water system policies, including prioritizing the use of groundwater, installing wellhead treatment facilities, and enhancing Transmission Grid Mains to promote adequate water quality and quantity.

Policy PU-8-g Review Project Impact on Supply. Mitigate the effects of development and capital improvement projects on the long-range water budget to ensure an adequate water supply for current and future users.

Objective RC-6 Ensure that Fresno has a reliable, long-range source of drinkable water.

Policy RC-6-a Regional Efforts. Support cooperative, multi-agency regional water resource planning efforts and activities on developing and implementing the Upper Kings Basin Integrated Regional Water Management Plan.

Policy RC-6-b Water Plans. Adopt and Implement ordinances, standards, and policies to achieve the intent of the City of Fresno Urban Water Management Plan, Fresno-Area Regional Groundwater management Plan, and City of Fresno Metropolitan Water Resources Management Plan to ensure a dependable supply of water.

Policy RC-6-c Land Use and Development Compliance. Ensure that land use and development projects adhere to the objective of the Fresno Metropolitan Water Resources Management Plan to provide sustainable and reliable water supplies to meet the demand of existing and future customers through 2025.

Objective RC-7 Promote water conservation through standards, incentives and capital investments.

*County of Fresno Revised 2000 General Plan*⁶⁹

Goal PF-C To ensure the availability of an adequate and safe water supply for domestic and agricultural consumption.

Policy PF-C.1 Retain Existing Water Supplies. The County shall actively engage in efforts and support the efforts of others within Fresno County to retain existing water supplies and to restore the water supplies that have diminished to the extent possible.

Policy PF-C.3 Surface Water Use. To reduce demand on the County's groundwater resources, the County shall encourage the use of surface water to the maximum extent feasible.

⁶⁹ Fresno County, Fresno County General Plan Policy Document, General Plan Update. October 2000.

Policy PF-C.8 Water Master Plans. The County shall require preparation of water master plans for areas undergoing urban growth.

Policy PF-C.12 Adequate Sustainable Water Supply. The County shall approve new development only if an adequate sustainable water supply to serve such development is demonstrated.

Fresno Municipal Code—Model Water Efficient Landscape Ordinance

As mentioned, the MWELO requires local agencies to implement water efficiency measures as part of its review of landscaping plans. Local agencies can either adopt the MWELO or incorporate provisions of the ordinance into its own code requirements for landscaping. Section 11 of Chapter 11, “Building Permits and Regulations,” and Section 23 of Chapter 15, “Citywide Development Code,” of the City Municipal Code, include requirements for landscape design and incorporates the requirements of the California MWELO, among other State codes and regulations. For new landscaping projects of 2,500 square feet or more that require a discretionary or ministerial approval, the applicant is required to submit a detailed “Landscape Documentation Package” that discusses water efficiency, soil management, and landscape design elements.

City of Fresno Metropolitan Water Resources Management Plan

The City of Fresno’s Metropolitan Water Resources Management Plan (Metro Plan) was prepared to document the existing conditions of the City’s water system and facilitate future water resources decisions and facilities improvements. Phase 1⁷⁰ consists of a baseline system characterization, Phase 2⁷¹ consists of the development and evaluation of future water supplies, Phase 3⁷² consists of implementation of the management plan, and Phase 4⁷³ included the preparation of an EIR for the City. Chapters 4, 5, 6, and 8 of Phase 2 discuss objectives, goals, and policies related to potable water, including water conservation (Chapter 4), groundwater (Chapter 5), surface water (Chapter 6), and future water supplies (Chapter 8). It should be noted that this plan was prepared in 2011, and a number of the stated objectives/goals/policies have already been completed. The City is currently in the process of updating the Metro Plan.

Urban Water Management Plan

The City’s UWMP was prepared as a requirement of the Urban Water Management Planning Act (UWMPA) (California Water Code, Division 6, Part 2.6, §§ 10610–10656). The UWMP outlines a water supplier’s long-term water resource planning to ensure sufficient water supplies for existing and future demands; it essentially sets the roadmap for how the City will utilize water over the coming years. UWMPs are updated and submitted to the DWR every 5 years. The UWMPA applies to urban water suppliers with 3,000 or more connections being served or supplying more than 3,000 AF of water annually.

⁷⁰ City of Fresno. Metropolitan Water Resources Management Plan, Phase 1 Baseline System Characterization. December 2007.

⁷¹ City of Fresno. Metropolitan Water Resources Management Plan, Phase 2 Alternative Development and Evaluation of Future Water Supply Plan. January 2011.

⁷² City of Fresno. Metropolitan Water Resources Management Plan, Phase 3 Implementation Plan. January 2011.

⁷³ City of Fresno. Metropolitan Water Resources Management Plan Update, Final Environmental Impact Report. May 2014.

Recycled Water

Fresno General Plan

Policy PU-7-d Wastewater Recycling. Pursue the development of a recycled water system and the expansion of beneficial wastewater recycling opportunities, including a timely technical, practicable, and institutional evaluation of treatment, facility siting, and water exchange elements.

Objective PU-8 Manage and develop the City's water facilities on a strategic timeline basis that recognizes the long life cycle of the assets and the duration of the resources, to ensure a safe, economical, and reliable water supply for existing customers and planned urban development and economic diversification.

Policy PU-8-a Forecast Need. Use available and innovative tools, such as computerized flow modeling to determine system capacity, as necessary to forecast demand on water production and distribution systems by urban development, and to determine appropriate facility needs.

Policy PU-8-c Conditions of Approval. Set appropriate conditions of approval for each new development proposal to ensure that the necessary potable water production and supply facilities and water resources are in place prior to occupancy.

Policy PU-8-g Review Project Impact on Supply. Mitigate the effects of development and capital improvement projects on the long-range water budget to ensure an adequate water supply for current and future uses.

Policy RC-6-d Recycled Water. Prepare, adopt, and implement a City of Fresno Recycled Water Master Plan.

City of Fresno Recycled Water Ordinance

The City adopted a Recycled Water Ordinance concurrently with its Recycled Water Master Plan to require the use of recycled water by existing and future potential users in areas where recycled water is available.⁷⁴ It regulates the use and distribution of recycled water in a manner that complies with any and all applicable federal, State, and local standards.

City of Fresno Rules and Regulations of Recycled Water Use

The City published the Rules and Regulations of Recycled Water Use to govern the design, construction, and use of recycled water within the City.⁷⁵ These Rules and Regulations aim to provide customers with the necessary information needed to comply with relevant codes, laws, statutes, and regulations concerning the use of recycled water. The Rules and Regulations are prepared and administered by the Department of Public Utilities (DPU) WMD and apply to all customers and distributors of recycled water.

⁷⁴ Bill No. B-18, Ordinance No. 2021-026. An Ordinance of the City of Fresno, California, Amending Chapter 6, Article 9, of the Fresno Municipal Code, the Recycled Water Ordinance. June 17, 2021.

⁷⁵ City of Fresno Department of Public Utilities. Rules and Regulations of Recycled Water Use.

City of Fresno Metropolitan Water Resources Management Plan—Phase 2 Development and Evaluation of Future Water Supply Plan

The City's Metro Plan was prepared to document the existing conditions of the City's water system and facilitate future water resources decisions and facilities improvements. Chapter 7 of Phase 2 discusses the City's anticipated future use of recycled water, and includes a list of proposed objectives, goals, and policies related to recycled water.⁷⁶

Wastewater*Fresno General Plan*

The City's General Plan contains the following goals, policies, and objectives relevant to the provision of wastewater service and facilities:

Objective PU-4 Ensure provision of adequate trunk sewer and collector main capacities to serve existing and planned urban development, consistent with the Wastewater Master Plan.

Policy PU-4-b New Trunk Facilities. Pursue construction of new or replacement sewer trunk facilities or other alternatives consistent with the Wastewater Master Plan to accommodate the uses as envisions in this General Plan.

Policy NS-4-c System Extension and Cost Recovery. Pursue enlargement or extension of the sewage collection system where necessary to serve planned urban development, with the capital costs and benefits allocated equitably and fairly between the existing users and new users.

Objective PU-5 Preserve groundwater quality and ensure that the health and safety of the entire Fresno community is not impaired by use of private, on-site disposal systems.

Policy PU-5-b Non-Regional Treatment. Discourage, and when determined appropriate, oppose the use of private wastewater (septic) disposal systems, community wastewater disposal systems, or other non-regional sewage treatment and disposal systems within or adjacent to the Metropolitan Area if these types of wastewater treatment facilities would cause discharges that could result in groundwater degradation.

Policy PU-5-c Satellite Facilities. Work with the Regional Water Quality Control Board to ensure that approval if any satellite treatment and reclamation facility proposal is consistent with governing statutes and regulations.

Objective PU-6 Ensure the provision of adequate sewage treatment and disposal by utilizing the Fresno-Clovis Regional Wastewater Reclamation Facility as the primary facility, when economically feasible, for all existing and new development within the Metropolitan Area.

⁷⁶ City of Fresno. Metropolitan Water Resources Management Plan, Phase 2 Alternative Development and Evaluation of Future Water Supply Plan. January 2011.

- Policy PU-6-a Treatment Capacity and Cost Recovery.** Prepare for and consider the implementation of increased wastewater treatment and reclamation facility capacity in a timely manner to facilitate planned urban development within the Metropolitan Area consistent with this General Plan. Accommodate increase in flows and loadings from the existing community with the capital costs and benefits allocated equitably and fairly between existing users and new users, as authorized by law.
- Policy PU-6-b Consider Capacity in Plan Amendments.** Monitor wastewater treatment plant flows and loadings to the extent feasible. Consider the effects on wastewater treatment capacity and availability of potable water when evaluating proposed General Plan amendment proposals, community plans, Specific Plans, neighborhood plans, and Concept Plans.
- Objective PU-7** Promote reduction in wastewater flows and develop facilities for beneficial reuse of reclaimed water and biosolids for management and distribution of treated wastewater.
- Policy PU-7-a Reduce Wastewater.** Identify and consider implementing water conservation standards and other programs and policies, to reduce wastewater flows.
- Policy PU-7-b Reduce Stormwater Leakage.** Reduce stormwater infiltration into the sewer collection system, where feasible, through a program of replacing old and deteriorated sewer collection pipeline; eliminating existing stormwater sewer cut-ins to the sanitary sewer system; and avoiding any new sewer cut-ins except when required to protect health and safety.
- Policy PU-7-c Biosolid Disposal.** Investigate and consider implementing economically effective and environmentally beneficial methods of biosolids handling and disposal.
- Policy PU-7-d Wastewater Recycling.** Pursue the development of a recycled water system and the expansion of beneficial wastewater recycling opportunities, including a timely technical, practicable, and institutional evaluation of treatment, facility siting, and water exchange elements.
- Policy PU-7-e Infiltration Basins.** Continue to rehabilitate existing infiltration basins, and if determined appropriate, pursue acquiring additional sites for infiltration basins, as needed.
- Policy PU-7-f Food and Drink Industry.** Ensure adequate provision of facilities for the appropriate management of wastewater from wineries and food processing and beverage facilities, including conformance with Waste Discharge Requirements issued by the Regional Water Quality Control Board.

*County of Fresno Revised 2000 General Plan*⁷⁷

Goal PF-D To ensure adequate wastewater collection and treatment and the safe disposal of wastewater.

Policy PR-D.4 Available Wastewater Treatment Capacity. The County shall limit the expansion of unincorporated, urban density communities to areas where community wastewater treatment facilities can be provided.

Policy PR-D.7 Sewer Master Plans. The County shall require preparation of sewer master plans for wastewater treatment facilities for areas experiencing urban growth.

City of Fresno Municipal Code

Article 3, “Sewage and Water Disposal,” of Chapter 6, “Municipal Services and Utilities,” of the Municipal Code includes provisions regarding wastewater collection and discharge for the City. The purpose of the “Sewage and Water Disposal” Ordinance is to ensure the health, safety, and general welfare of citizens; protect the water quality of water courses, water bodies, and groundwater in accordance with the CWA and the NPDES permitting program; and provide requirements for wastewater collection, conveyance, treatment, and disposal/recycling.

Sewer System Management Plan

Under the Statewide General Wastewater Discharge Requirements for Sanitary Sewer Systems (see State Water Resources Control Board above), the City was required to develop and maintain a SSMP to provide a mechanism to properly manage, operate, and maintain all parts of the sanitary sewer system with the goal of reducing and preventing SSOs, which is a release of untreated or partially treated wastewater resulting in public exposure, regardless of whether the wastewater reaches waters of the United States or not, or wastewater backups into buildings and onto private property that are caused by blockages in the City’s portion of the sanitary sewer system.⁷⁸ The City’s first SSMP was approved in 2009 and several revisions have been issued since; the latest revision was approved in 2019.

Drainage and Flood Control*Fresno General Plan*

The City’s General Plan contains the following goals, policies, and objectives relevant to the provision of drainage and flood control service and facilities:

Policy NS-2-b Soil Analysis Requirement. Identify areas with potential geologic and/or soils hazards and require development in these areas to conduct a soil analysis and mitigation plan by a registered civil engineer (or engineering geologist specializing in soil geology) prior to allowing on-site drainage or disposal for wastewater, stormwater runoff, or swimming pool/spa water.

⁷⁷ Fresno County, Fresno County General Plan Policy Document, General Plan Update. October 2000.

⁷⁸ City of Fresno. Sewer System Management Plan. 2019.

Objective NS-3 Minimize the risks to property, life, and the environment due to flooding and stormwater runoff hazards.

Policy NS-3-a Stormwater Drainage and Flood Control Master Plan. Support the full implementation of the FMFCD Storm Drainage and Flood Control Master Plan, the completion of planned flood control and drainage system facilities, and the continued maintenance of stormwater and flood water retention and conveyance facilities and capacities. Work with the FMFCD to make sure that its Storm Drainage and Flood Control Master Plan is consistent with the General Plan.

Policy NS-3-b Curb and Gutter Installation. Coordinate with Fresno Metropolitan Flood Control District (FMFCD) to install curbing, gutters, and other drainage facilities with priority to existing neighborhoods with the greatest deficiencies and consistent with the Storm Drainage and Flood Control Master Plan.

Policy NS-3-c Dual Use Facilities. Support multiple uses of flood control and drainage facilities as follows:

- Use, wherever practical, FMFCD facilities for groundwater management and recharge; and
- Promote recreational development of ponding basin facilities located within or near residential areas, compatible with the stormwater and groundwater recharge functions.

Policy NS-3-e Pollutants. Work with FMFCD to prevent and reduce the existence of urban stormwater pollutants pursuant to the requirements of the National Pollution Discharge Elimination Systems Act.

Policy NS-3-f Flooding Emergency Response Plans. Work with responsible agencies to update emergency dam failure inundation plans, evacuation plans and other emergency response plans for designated flood-prone areas, including the San Joaquin River bottom.

Policy NS-3-g Essential Facilities Siting Outside of Floodplains. Avoid siting emergency response and essential public facilities, such as fire and police stations, within a 100-year floodplain, unless it can be demonstrated that the facility can be safely operated and accessed during flood events.

Policy NS-3-h Runoff Controls. Implement grading regulations and related development policies that protect area residents from flooding caused by urban runoff produced from events that exceed capacity of the Storm Drainage and Flood Control Master Plan system of facilities. Place all structures and/or flood-proofing in a manner that does not cause floodwaters to be diverted onto adjacent property, increase flood hazards to other property, or otherwise adversely affect other property.

- Policy NS-3-i New Development Must Mitigate Impact.** Require new development to not significantly impact the existing storm drainage and flood control system by imposing conditions of approval as project mitigation, as authorized by law. As part of this process, closely coordinate and consult with the FMFCD to identify appropriate conditions that will result in mitigation acceptable and preferred by FMFCD for each project.
- Policy NS-3-k 100-Year Floodplain Policy.** Require developers of residential subdivisions to preserve those portions of development sites as open space that may be subject to 100-year flood events, unless the flood hazard can be substantially mitigated by development project design.
- Policy NS-3-l 200-Year Floodplain Protection.** Promote flood control measures that maintain natural conditions within the 200-year floodplain of rivers and streams and, to the extent possible, combine flood control, recreation, water quality, and open space functions. Discourage construction of permanent improvements that would be adversely affected by periodic floods within the 200-year floodplain, particularly in the San Joaquin River bottom.
- Policy NS-3-m Flood Risk Public Awareness.** Continue public awareness programs to inform the general public and potentially affected property owners of flood hazards and potential dam failure inundation. Remind households and businesses located in flood-prone areas of opportunities to purchase flood insurance.
- Policy RC-6-f Regulate Sewage Disposal Facilities.** Oppose development of new sewage disposal facilities either within the Planning Area or upgradient (north and east) of the Planning Area, unless the treatment facilities produce effluent that:
- Will not degrade the aquifer in the long term.
 - Will not introduce contaminants into surface water that would negatively affect its potential economic use for drinking water.
 - Will not deleteriously affect downstream agricultural and urban uses.
 - Will not degrade sensitive riparian habitat.

*County of Fresno Revised 2000 General Plan*⁷⁹

- Goal PF-E** To provide efficient, cost-effective, and environmentally sound storm drainage and flood control facilities that protect both life and property and to divert and retain stormwater runoff for groundwater replenishment.
- Policy PF-E.1 Flood Control Coordination.** The County shall coordinate with the agencies responsible for flood control or storm drainage to assure that construction and

⁷⁹ Fresno County. Fresno County General Plan Policy Document. General Plan Update. October 2000.

acquisition of flood control and drainage facilities are adequate for future urban growth authorized by the County General Plan and City General Plans.

Policy PF-E.4 Storm Drainage System Capacity. The County shall encourage the local agencies responsible for flood control or storm drainage to require that storm drainage systems be developed and expanded to meet the needs of existing and planned development.

Policy PF-E.10 Drainage Facility Design. In growth areas within the jurisdiction of a local agency responsible for flood control or storm drainage, the County shall encourage that agency to design drainage facilities as if the entire areas of service were developed to the pattern reflected in the adopted general plans to assure that the facilities will be adequate as the land use intensifies.

City of Fresno Municipal Code

Article 7, “Urban Storm Water Quality Management and Discharge Control,” of Chapter 6, “Municipal Services and Utilities,” of the Municipal Code includes provisions regarding stormwater discharge for the City. The purpose of the “Storm Water Quality Management and Discharge Control” Ordinance is to ensure the health, safety, and general welfare of citizens, and protect the water quality of water courses and water bodies in accordance with the CWA by reducing pollutants in urban stormwater discharges to the maximum practicable extent and by prohibiting non-stormwater discharges to the storm drain system.

FMFCD Post-Development Standards Technical Manual

The FMFCD published a Post-Development Standards Technical Manual in 2014 to provide development and redevelopment standards to address stormwater quality requirements for projects in areas that do not drain to the Regional Stormwater Management Basin System.⁸⁰ Per the manual, five drainage areas in the FMFCD service area do not drain into a stormwater management basin, and two areas outside the service area do not drain into a regional stormwater management basin. These post-development requirements were developed to comply with the Municipal Separate Storm Sewer System (MS4) Permit maintained for stormwater and non-stormwater discharges from MS4 to waters of the United States. The manual provides guidance and recommendations for implementing stormwater quality BMPs with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges.

FMFCD Standard Plans and Specifications

The FMFCD maintains and publishes a set of standard specifications and plans intended to serve as requirements for FMFCD improvements and projects intended for use by designers and Contractors.

⁸⁰ Fresno Metropolitan Flood Control District. Post-Development Standards Technical Manual prepared by Larry Walker Associates, June 2014.

Solid Waste

Fresno General Plan

The City's General Plan contains the following goals, policies, and objectives relevant to the provision of solid waste service and facilities:

Objective PU-9 Provide adequate solid waste facilities and services for the collection, transfer, recycling, and disposal of refuse.

Policy PU-9-a New Techniques. Continue to collaborate with affected stakeholders and partners to identify and support programs and new techniques of solid waste disposal, such as recycling, composting, waste to energy technology, and waste separation, to reduce the volume and toxicity of solid wastes that must be sent to landfill facilities.

Policy PU-9-b Compliance with State Law. Continue to pursue programs to maintain conformance with the Solid Waste Management Act of 1989 or as otherwise required by law and mandated diversion goals.

Policy PU-9-c Cleanup and Nuisance Abatement. Continue and enhance, where feasible, community sanitation programs that provide services to neighborhoods for cleanup, illegal dumping, and nuisance abatement services.

Policy PU-9-d Facility Siting. Locate private or public waste facilities and recycling facilities in conformance with City zoning and State and federal regulations, so that the transportation, processing, and disposal of these materials are not detrimental to the public health, safety, welfare, and aesthetic well-being of the surrounding community.

County of Fresno Revised 2000 General Plan

Goal PF-F To ensure the safe and efficient disposal or recycling of solid waste generated in the County in an effort to protect the public health and safety.

Policy PF-F.1 Solid Waste Source Reduction. The County shall continue to promote maximum use of solid waste source reduction, reuse, recycling, composting, and environmentally safe transformation of wastes.

Policy PF-F.5 County Integrated Waste Management Plan. The County shall ensure that all new development complies with applicable provisions of the County Integrated Waste Management Plan.

Electricity, Natural Gas, and Telecommunications

Fresno General Plan

The City's General Plan contains the following goals, policies, and objectives relevant to the provision of electricity, natural gas, and telecommunications facilities:

- Policy RC-1-f Telecommunications Strategy.** Develop a process for communication carriers to use excess fiber optic conduit with the City in a manner that will allow for appropriate cost recovery and that is consistent with State and federal law.
- Objective RC-8** Reduce the consumption of nonrenewable energy resources by requiring and encouraging conservation measures and the use of alternative energy sources.
- Policy RC-8-a Existing Standards and Programs.** Continue existing beneficial energy conservation programs, including adhering to the California Energy Code in new construction and major renovations.
- Policy RC-8-b Energy Reduction Targets.** Strive to reduce per capita residential electricity use to 1,800 kWh per year and nonresidential electricity use to 2,700 kWh per year per capita by developing and implementing incentives, design and operation standards, promoting alternative energy sources, and cost-effective savings.
- Policy RC-8-c Energy Conservation in New Development.** Consider providing an incentive program for new buildings that exceed California Energy Code requirements by 15 percent.
- Policy RC-8-d Incentives.** Establish an incentive program for residential developers who commit to building all of their homes to ENERGY STAR performance guidelines.
- Policy RC-8-e Energy Use Disclosure.** Promote compliance with State law mandating disclosure of a building's energy data and rating of the previous year to prospective buyers and lessees of the entire building or lenders financing the entire building.
- Policy RC-8-f City Heating and Cooling.** Reduce energy use at City facilities by updating heating and cooling equipment and installing "smart lighting" where feasible and economically viable.
- Policy RC-8-g Revolving Energy Fund.** Create a City Energy Fund which uses first year savings and rebates from completed City-owned energy efficiency projects to provide resources for additional energy projects. Dedicate this revolving fund to the sole use of energy efficiency projects that will pay back into the fund.
- Policy RC-8-h Solar Assistance.** Identify and publicize information about financial mechanisms for private solar installations and provide over-the-counter permitting for solar installations meeting specified standards, which may include maximum size (in kV) of units that can be so approved.
- Policy RC-8-i Renewable Target.** Adopt and implement a program to increase the use of renewable energy to meet a given percentage of the City's peak electrical load within a given time frame.

Policy RC-8-k Energy Efficiency Education. Provide long-term and ongoing education of homeowners and businesses as to the value of energy efficiency and the need to upgrade existing structures on the regular basis as technology improves and structures age.

County of Fresno Revised 2000 General Plan

Goal PF-J To provide efficient and cost-effective utilities that serve the existing and future needs of people in the unincorporated areas of the County.

Policy PF-J.1 The County shall encourage the provision of adequate gas and electric, communications, and telecommunications service and facilities to serve existing and future needs.

Policy PF-J.2 The County shall work with local gas and electric utility companies to design and locate appropriate expansion of gas and electric systems, while minimizing impacts to agriculture and minimizing noise, electromagnetic, visual, and other impacts on existing and future residents.

Policy PF-J.3 The County shall require all new residential development along with new urban commercial and industrial development to underground utility lines on-site.

Policy PF-J.4 The County shall require compliance with the Wireless Communications Guidelines.

Solar Valley Initiative

This initiative envisions Fresno as becoming a leader in renewable energy use by maximizing new renewable sources. With its abundant sunshine, the opportunity exists to improve air quality, reduce dependence on foreign energy, and provide attractive new jobs by harnessing solar power. Three initiatives work toward this vision:

- Increase use of renewable energy to meet 50 percent of annual electrical consumption for City operations.
- Reduce the City's peak electrical load by 10 percent through energy efficiency and conservation measures and shifting the timing of energy demands.
- Reduce citywide GHG emissions to meet requirements of AB 32.

Fresno Southeast Development Area Specific Plan

The Fresno SEDA Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to utilities and service systems:

Open Space, Schools, and Public Facilities

Objective OS-2 Create and maintain an open space network that serves multiple purposes, including recreation, stormwater management, community farming, and environmental preservation.

Policy OS-2.3 Stormwater Management Features. Maximize the use of green stormwater management infrastructure—such as ponds, basins, swales, and other low-impact systems—within the open space system.

- Coordinate with Fresno Metropolitan Flood Control District (FMFCD) to incorporate green infrastructure within city parks and trails.

Objective OS-12 Provide solid waste services and facilities in accordance with the City of Fresno General Plan.

Policy OS-12.1 Solid Waste Facilities and Services. Provide solid waste facilities and services for the collection, transfer, recycling, and disposal of refuse in accordance with the policies of the City of Fresno General Plan.

Objective OS-13 Provide electricity, natural gas, and telecommunications infrastructure necessary to serve development in the SEDA.

Policy OS-13.1 Provision of Electricity and Natural Gas Infrastructure. The City of Fresno shall work with Pacific Gas and Electric Company (PG&E) to provide the necessary electricity and gas infrastructure to serve development in the SEDA.

Policy OS-13.3 Provision of Telecommunications Infrastructure. The City of Fresno shall work with service providers to establish the telecommunications infrastructure necessary to serve the residents and employers of the SEDA.

Objective OS-14 Provide water, stormwater, and wastewater infrastructure necessary to serve development in the SEDA.

Policy OS-14.1 Provision of Water, Stormwater, and Wastewater Infrastructure. Provide water, stormwater, and wastewater infrastructure in accordance with the policies of the Greenhouse Gas Reduction and Conservation Chapter.

Greenhouse Gas Reduction and Conservation

Objective RC-2 Integrate water supply, treatment and delivery, and flood control and stormwater planning in the Southeast Development Area.

Policy RC-2.2 Shared Water Resources and Infrastructure. Develop methods and systems to share water resources and infrastructure to capture the highest possible value for all planning, water delivery, and water-using agencies.

Objective RC-3 Promote water conservation and the long-term sustainability of water resources within the Southeast Development Area.

Policy RC-3.2 Site and Building Efficiency Standards from Water Use. Green building standards contain a spectrum of strategies to conserve water, including site measures to encourage the planting of species that require minimal water. All new construction in the SEDA is required to meet existing local and State laws with regard to water conservation and any additional measures needed locally to respond to drought conditions as determined by the City of Fresno Department of Public Utilities.

Policy RC-3.3 Water Recycling. Use treated wastewater for irrigation and other uses, consistent with applicable regulations, to minimize the required surface and groundwater needs of SEDA homes and businesses.

- **Public Facilities:** Require the use of tertiary treated wastewater to irrigate parks, golf courses, and public landscaping, as specified in the Open Space, Schools and Public Facilities Chapter.
 - **Municipal purple pipe.** Establish a site- or district-wide purple pipe system that conveys recycled water.
 - **Water treatment facilities.** Available to serve the SEDA, the Southeast Service Water Treatment Facility was constructed in 2018 and is designed with the latest energy conservation and renewable energy technology.
- **Commercial Landscaping:** Require the use of treated wastewater to irrigate commercial landscaping, adhering to the standards included in the California Code of Regulations, Title 22.
- **Residential Landscaping:** Where appropriate, encourage the use of tertiary treated wastewater to irrigate residential landscaping. Specific policy considerations should be addressed in the pending SEDA Infrastructure Financing Plan and EIR-related water infrastructure planning tasks.
- **Small Farms and Community Farming:** Use secondary- and tertiary treated wastewater for agricultural irrigation in the SEDA and within the immediate vicinity, consistent with applicable laws and regulations. Specific policy considerations should be addressed in the pending SEDA Infrastructure Financing Plan and EIR-related water infrastructure planning tasks.

Policy RC-3.4 Implementation and Monitoring. Support and monitor water conservation policies and programs. Developer shall abide by all state and local requirements for water use efficiency standards.

Objective RC-4 Ensure that there will be no adverse effects on regional groundwater levels by minimizing groundwater extraction and replenishing groundwater used to serve the Southeast Development Area. Maximize multiple uses of open space by encouraging new recharge facilities to be accessible to the public.

Policy RC-4.1 Minimizing Groundwater Extraction. Use available surface water supplies to meet as much of the SEDA's potable water demand as possible, limiting groundwater extraction to extreme periods. The pending SEDA Infrastructure Financing Plan shall address this issue in detail.

Policy RC-4.2 Replacement of Extracted Groundwater. The North Kings Groundwater Sustainability Plan (approved in 2019) illustrates the decrease in groundwater levels in the region as a result of pumping. All groundwater drawn to serve development in the SEDA shall be replaced with at least an equal volume via infiltration, pumping, or other means. Recharge need not necessarily occur the same year as withdrawals, however, over time, total recharge must at least match total withdrawals. Recharge and withdrawals need not occur within the same groundwater aquifer but must be within the same groundwater basin. The pending SEDA Infrastructure Financing Plan shall address this issue in detail.

Policy RC-4.3 Maximizing Groundwater Recharge. Establish integrated systems within the SEDA open space network to maximize recharge using stormwater, treated wastewater, and excess surface water supplies. Facilitate increased porosity and stormwater recharge through the use of porous conveyance methods such as bioswales, naturalized channels, and layered basins. Recharge and related systems shall be addressed in the SEDA Infrastructure Financing Plan.

Policy RC-4.4 Utilization of Recreation and Open Spaces as Groundwater Recharge Areas. Support recreation opportunities with a range of parks and multiuse trails by establishing joint-use agreements with Fresno Metropolitan Flood Control District to allow access to storm drainage/recharge basins for recreational use, when appropriate (see the Open Space, Schools and Public Facilities Chapter).

Objective RC-5 Protect surface and groundwater supplies from major sources of pollution.

Policy RC-5.1 Stormwater Runoff. Implement stormwater management practices that minimize stormwater runoff impacts on the Tulare Lake Watershed.

- **Compact Development:** Limit impervious cover by clustering new, higher density development within the SEDA, directing growth away from undeveloped portions of the watershed.
 - **Compact development.** Reduce the building footprint and overall impervious surface in order to minimize lot coverage on a per unit basis.
 - **Parking demand management.** Reduce the demand for parking stalls to lower the amount of impervious surface (and environmental impacts).
- **Low Impact Development Practices:** Implement development practices such as natural conveyance, bioswales, raingardens and xeriscape that minimize, slow, and filter street runoff and remove pollutants, lowering peak volume and reducing the size and cost of stormwater infrastructure.

Policy RC-5.2 Hazardous Materials and Pesticide Reduction. Prevent contamination of the groundwater table and surface water resources and discourage all pesticide use for agricultural and landscaping uses within the SEDA.

- **Signage:** Install appropriate signage to deter the discharge of hazardous materials into storm drains.
- **Pollution Prevention:** Provide information to SEDA residents on appropriate ways to dispose of hazardous materials and chemicals.
- **Pesticide Reduction:** Discourage all pesticide use for agricultural and landscaping uses within the SEDA.
- **Remediation:** Encourage rapid cleanup of contaminated groundwater consistent with applicable laws and regulations.

Policy RC-5.3 Construction Erosion.

- **Erosion and Sedimentation Control Plan:** Require all construction projects to create and implement a plan using State and local best management practices for erosion and sedimentation control.
- **Runoff Control:** Prevent loss of soil by stormwater runoff and sedimentation of storm sewers or receiving streams.

Objective RC-6 Develop sufficient wet utility infrastructure to meet the demand created by new development within the Southeast Development Area, applying cost-effective and low-impact strategies to the extent possible.

Policy RC-6.1 Water Supply and Delivery. Evaluate the potential surface water, groundwater resources and infrastructure needs necessary to meet the Southeast Development Area demand. Assessments shall be included in the pending SEDA Infrastructure Financing Plan and EIR-related water infrastructure planning tasks.

- **Site and Development-Level Water Supply:** Utilizing the pending SEDA Infrastructure Financing Plan as a basis, establish estimates for water supply and demand for all development proposals, reducing demand (as appropriate) through site design and efficiency measures.
- **Delivery Systems:** Proposed water supplies and delivery systems shall be identified at the time of development project approval to the satisfaction of the City of Fresno. Systems must work within the schematic designs established in the pending EIR-related water infrastructure planning tasks, and the SEDA Infrastructure Financing Plan.
 - **Water demand reductions.** The City of Fresno and the developer or builder will identify specific demand reduction measures required for the development proposal to move forward. Technical assistance will be provided by the City as needed.

- **Detailed engineering.** Infrastructure planning and engineering will be conducted with the proposed demand reduction factors included.

Policy RC-6.2 Wastewater Treatment and Delivery. Evaluate the potential wastewater treatment and infrastructure needs necessary to meet Southeast Development Area demand and require treatment facilities to separate wastewater solids for energy generation and water for irrigation in the SEDA.

- **Site Water Treatment:** Establish site-wide estimates for water treatment demand, reducing demand (as appropriate) after incorporating site design and efficiency measures.
- **Site Plan Delivery.** Proposed wastewater supplies and delivery systems shall be identified at the time of development project approval to the satisfaction of the City of Fresno.
 - **Wastewater reductions.** The City of Fresno and the developer will identify specific wastewater reduction measures required for the development proposal to move forward. Technical assistance will be provided by the City as needed. Infrastructure planning and engineering will be conducted with the proposed demand reduction factors included.

Policy RC-6.3 Flood Control and Stormwater Management. Evaluate and provide infrastructure to minimize community flood risk, enhance water quality, and provide locations for active recreation.

- **Sub-Area or Development Proposal Delivery:** Proposed stormwater systems shall be identified at the time of development project approval to the satisfaction of the City of Fresno. Systems must work within the requirements established in the pending EIR-related water infrastructure planning tasks and the SEDA Infrastructure Financing Plan.
 - **Stormwater runoff reductions.** The City of Fresno and the developer will identify specific reduction measures required for the development proposal to move forward.
 - **Detailed engineering.** Infrastructure planning and engineering will be conducted with the proposed demand reduction factors included.

Policy RC-6.4 Shared Resources and Infrastructure. Develop methods and systems to share resources, infrastructure, and to capture the highest possible value for all public agencies. Resource-sharing strategies and plans shall be included in the SEDA Infrastructure Financing Plan.

- **Energy Generation:** Evaluate the potential to generate energy and heat from wastewater treatment facilities.

- **Biodigestion.** Study opportunities to treat wastewater sludge and organic waste to capture methane, alcohols, fertilizers, and other fuels to transform into renewable energies.
- **Wastewater Treatment Plants:** Require treatment facilities to separate wastewater solids for energy generation and water for irrigation in the SEDA.
- **Safety and Access Standards for Facilities:** Develop facilities design and management standards that address public safety and access issues.

3.18.4 - Methodology

The potential project-related impacts related to utilities and service systems were evaluated on a qualitative basis due to the programmatic nature of this Recirculated Draft PEIR. Qualitative impacts were assessed by evaluating the proposed project's potential for impacting utilities and service systems within the Planning Area based on information regarding the current service commitments and capacities of public service providers within the Planning Area.

Technical studies were developed to analyze the impacts of development under the proposed Specific Plan versus the approved General Plan. General Plan land use classifications and Specific Plan land use classifications were provided by the City's Planning and Development Department in the form of GIS (Geographic Information System) and Shape files. GIS and Shape files were also obtained from the City's Department of Public Utilities for the existing facilities in Fresno, including the Plan Area.

The Water Technical Study (Appendix F) focused on the analysis of water demand in the Plan Area, and how it may change based on Specific Plan development. For the General Plan land use case, the technical memorandum prepared by West Yost Associates for the City of Fresno General Plan Update MEIR⁸¹ was used in obtaining projected water demand data for SEDA. For the Specific Plan analysis, the water demand factors used were prepared by Akel Engineering as part of the Metro Plan Update.⁸² The GIS files for the General and Specific Plan land uses were used to determine the total areas of each land use classification. The water demand factors were then used with the area of the corresponding land use classification to determine a total water demand for the Plan Area based on the General Plan and the Specific Plan developments. The total water demand for the Plan Area based on the General Plan case was compared to that of the Specific Plan case, resulting in the total change in water demand for the Plan Area.

The Recycled Water Technical Study (Appendix I) focused on the analysis of potential recycled water demand in the Plan Area, and how it may affect development in accordance with the Specific Plan. The Plan Area presents a unique opportunity to develop the recycled water distribution system along with the area-wide development, allowing recycled water use to be engrained into the Plan Area. However, recycled water is not yet utilized in the Plan Area, and the Recycled Water planning documents do not account for the development of a recycled water distribution system within the

⁸¹ West Yost Associates. Hydraulic Evaluation of the Proposed 2035 General Plan Land Use Update for the Master Environmental Impact Report. January 21, 2013.

⁸² Akel Engineering Group Inc. Water and Wastewater Unit Factor Update for Metropolitan Water Resources Management Plan Update. October 2020.

Plan Area until after the planned development of the City's growth areas. Improvements within the Plan Area will be required to facilitate the use of recycled water. Since the recycled water distribution system has not yet been planned for the area, it was assumed that all land uses that would be eligible for recycled water use will utilize potable water until the recycled water supply and distribution system are available. A baseline analysis of the Plan Area was completed to understand a preliminary recycled water demand based solely on estimated area of open space presented in the Specific Plan buildout plan, and only accounting for recycled water that may be used for irrigation of said open space. Preliminary irrigation calculations were completed to determine the Estimated Total Water Use (ETWU) of the park acres in the Plan Area. Assuming the landscaping would be warm-season turf, and irrigation would mainly be applied via overhead spray/rotors, an annual ETWU with rainfall included of approximately 283 AF (0.3 MGD) was found for the Plan Area.

The Wastewater Technical Study (Appendix I) focused on the analysis of wastewater production in the Plan Area, and how it may change based on Specific Plan development. The wastewater flow factors were taken from the Wastewater Master Plan⁸³ for each General Plan land use. The GIS files for the General and Specific Plan land uses were used to determine the total areas of each land use classification. The wastewater flow factors were then multiplied by the area of the corresponding land use classification to determine a total wastewater flow for the Plan Area based on the General Plan and the Specific Plan developments. The total wastewater produced by the Plan Area based on the General Plan case was compared to that of the Specific Plan case, resulting in the total change in wastewater generation for the Plan Area.

The Storm Drain Technical Study (Appendix I) focused on comparing the changes in the Equivalent Area for each drainage area of the General Plan to the Specific Plan to determine potential impacts to future storm drain collection systems. The methodology used to calculate the CA values for each case utilized land use data obtained from the City and design data from FMFCD. For the General Plan land use analysis, the FMFCD's "Recommended Design C-Factors for the City of Fresno" was used. Not all land uses described in the General Plan are listed in this table, so some C-Factors were estimated based on their description, while others were taken from FMFCD's hydraulic and hydrology spreadsheets when possible. The FMFCD is currently developing updated C-Factors for the SEDA Specific Plan land use classifications; a set of preliminary values have been developed, and these were used in completing the SEDA Specific Plan analysis. The Equivalent Area data was used to evaluate the required storage capacity for each drainage area and how this compared to the existing/proposed drainage basins in the Plan Area.

The results from the Technical Studies, along with various City, State, and federal planning documents, were used to analyze and assess the impacts of all utilities systems within the Specific Plan Area and to determine the thresholds of significance for each impact.

⁸³ Carollo Engineers, and Blair, Church & Flynn Consulting Engineers, Inc. 2015. City of Fresno Wastewater Collection System Master Plan Update. September.

3.18.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in the CEQA Guidelines Appendix G Environmental Checklist to determine whether impacts to utilities and service systems are significant environmental effects.

Would the project:

- a) 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?
- b) Have sufficient water supplies available to serve the 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 project that it has adequate capacity to serve the 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 statutes and regulations related to solid waste?

3.18.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the proposed project and provides mitigation measures where appropriate.

Water and Wastewater Treatment 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.
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Impact Analysis

The potential long-term impacts to utility services and facilities are based on the potential increase in development as a result of the implementation of the proposed Specific Plan. The Specific Plan for SEDA provides implementation mechanisms for development in the Plan Area that accommodate for increased density and accelerate housing production. As part of the City's General Plan, SEDA was designated with land use classifications as defined in the General Plan. The Specific Plan presents alternative land use classifications for SEDA and seeks to propose how the Plan Area will develop over time to complete buildout conditions with these newly defined land use categories. As such, utility infrastructure will need to accommodate the increased development and densities among the Specific Plan land use classifications when compared to the previously approved General Plan land uses and developments.

The proposed project would involve the relocation, construction, or expansion of numerous utility facilities in order to provide utilities services for the new land uses associated with the proposed

project. The proposed utility expansions are a part of the Project Description, and the potential impacts that would result from construction of these facilities are evaluated throughout this Draft PEIR (e.g., Section 3.3, Air Quality; Section 3.10, Hydrology and Water Quality; and Section 3.13, Noise and Vibration, etc.). The purpose of the analysis in this Section 3.18, Utilities and Service Systems, is to evaluate whether the proposed facilities would have adequate capacity to serve the proposed project's demand for utilities and service systems during construction and operation, or whether further relocation or construction of new or expanded facilities would be required.

Construction

The construction of expanded and new water, wastewater treatment, stormwater drainage, and other utility facilities could result in short-term environmental effects. These temporary effects include traffic, air emissions, GHG emissions, and noise from construction equipment and vehicles as well as water quality effects during construction. The following is a discussion of each potential impact.

- **Traffic**—Construction of these facilities may require lane closures or other traffic control measures along the adjacent roadway and could result in lower levels of service on nearby roadways and intersections. These effects would be potentially significant.
- **Air emissions**—Construction activities would result in the generation of criteria pollutants, such as reactive organic gases (ROGs) and nitrogen oxides (NO_x) (ozone precursors) and particulate matter (PM₁₀ and PM_{2.5}) pollutant emissions. The implementation of the proposed Specific Plan policies as well as existing San Joaquin Valley Air Pollution Control District (Valley Air District) regulations identified in Section 3.3, Air Quality, would reduce potential construction emissions. However, since the timing of the construction of the expanded and new facilities is not known, there could be more than one facility under construction at one time. Therefore, there is a possibility that emission standards for the criteria pollutants identified above could be exceeded and significant impacts could occur. In addition, the operation of treatment plants and construction of other utility infrastructure (pipes, basins, etc.) would contribute to emissions associated with the buildout of the proposed Specific Plan. These emissions could be criteria pollutants, toxic pollutants, and odors. These emissions would be potentially significant.
- **GHG Emissions**—Construction of utility facilities and treatment plants would result in the generation of GHG emissions. Construction emissions would occur only in the short-term; however, since the timing of the construction of the expanded and new facilities is not known, there could be more than one facility under construction at one time. Therefore, there is a possibility that a substantial amount of GHG emissions could occur. In addition, the operation of treatment plants and construction of other utility infrastructure (pipes, basins, etc.) could contribute to emissions associated with the buildout of the proposed Specific Plan. These emissions would be potentially significant.
- **Noise**—Construction and operation of expanded and new treatment plants and other utility infrastructure (pipes, basins, etc.) would increase noise levels in the vicinity of each improvement and facility location. Various proposed Specific Plan policies (see Section 3.13, Noise), and existing General Plan policies would reduce potential noise levels to meet City

noise standards. Therefore, potential increases in noise levels associated with the future construction and operation of expanded and new utility facilities and infrastructure would be less than significant.

- **Water Quality**—Construction activities associated with expanded and new utility facilities and infrastructure could result in potential water quality issues. However, projects that disturb more than one acre of soil must obtain coverage under the Construction General Permit and implement BMPs to protect surface water flows from sources of pollution at the construction site. With the implementation of the proposed Specific Plan policies, existing General Plan policies, and the required BMPs, short-term construction impacts on surface water quality would be less than significant. In addition, the operations of any treatment facilities would discharge treated water to approved locations. The approval of these locations would require consistency with the regulatory requirements identified in a waste discharge permit. Consistency with these discharge permits would result in a less than significant impact on long-term water quality.

There may also be construction impacts as a result of new or expanded utility infrastructure that could result in long-term effects related to aesthetics, agricultural resources, biological resources, and cultural resources. The following is a discussion of these potential impacts.

- **Aesthetics**—Impacts to aesthetics may be adverse on the Specific Plan Area. The construction of expanded or new utility facilities, infrastructure, or treatment facilities could alter the current visual characteristics of the area. However, the proposed Specific Plan includes various policies (see Section 3.2 Aesthetics) to reduce potential aesthetic impacts, and the expanded or new facilities would not substantially alter the visual characteristic of the area. These potential facilities may add lighting systems in the area; however, the increases in lighting are anticipated to be less than significant with the implementation of the proposed Specific Plan policies and mitigation measures identified in Section 3.2, Aesthetics.
- **Agricultural Resources**—The general locations of proposed expanded or new utility facilities or infrastructure could result in impacts to current Farmland Mapping and Monitoring Program (FMMP) designated areas. The removal of FMMP lands would result in significant impacts; therefore, the construction of expanded or new utility facilities and infrastructure could result in significant farmlands impacts.
- **Biological Resources**—The future construction of expanded or new utility facilities and infrastructure could result in impacts to biological resources. Proposed Specific Plan policies and mitigation measures identified in Section 3.4, Biological Resources, would reduce potential impacts to biological resources to less than significant.
- **Cultural Resources**—The future construction of expanded or new utility facilities and infrastructure could result in impacts to cultural resources. There is a potential for unknown cultural resources (i.e., archaeological, paleontological, and human remains) to be located at the future sites of the proposed utilities. Although there is a potential for unknown resources, the implementation of the proposed Specific Plan policies and mitigation measures identified in Section 3.5, Cultural Resources, would reduce the potential impacts to cultural resources to less than significant.

Water Supply

The potential long-term impacts related to water supply requirements of the baseline General Plan conditions for the Plan Area versus the proposed Specific Plan conditions for the Plan Area differ by 1.7 percent and are considered less than significant for full implementation of the proposed Specific Plan with mitigations incorporated. The results of the water demand analysis are shown in Table 3.18-1 and Table 3.18-2.

Per the Water Technical Study prepared for this Recirculated Draft PEIR, projected water demand for the Plan Area under General Plan conditions was 19.50 mgd, and the projected water demand for the Plan Area under Specific Plan conditions was 19.83 mgd, resulting in an increase of 0.33 mgd (370 AFY), or 1.7 percent. Though this increase is not substantial, there may still be a need for expansion of water supply and treatment facilities, and construction of new distribution facilities to serve future land uses in the Plan Area is still required as there are no existing City water distribution facilities in the Plan Area. Thus, development of the Plan Area could result in significant impacts to the existing water supply and distribution system. See the Technical Study for a full explanation of the analysis process and subsequent results.

A summary of master planned proposed water supply, treatment, and distribution infrastructure that would accommodate future development associated with the Specific Plan include the following:

- New municipal groundwater wells.
 - Wellhead treatment as needed.
- Expansion of the NESWTF.
- New water storage tanks and booster pump stations.
- Extension of 48-inch diameter RTM.
- New Transmission Grid Mains of various sizes.
- New recharge inter-ties to FMFCD basins.

Table 3.18-1: Specific Plan Anticipated Water Demand per Land Use Classification

General Plan Land Classification	Specific Plan Equivalent Land Use Classification	Specific Plan Base Water Demand (mgd)
Residential—Low Density	Residential—Rural Residential	4.18
Residential—Medium Density	Residential—Neighborhood Residential	4.03
Residential—Urban Neighborhood	Residential—Mixed Residential	5.27
Employment—Office	Employment—Office Center	0.38
Employment—Business Park	Employment—Flexible Research and Development	0.04
Employment—Regional Business Park		2.17
Mixed Use -Corridor/Center Mixed Use	Mixed Used—Community Center	0.53
Mixed Use—Regional Mixed Use	Mixed Use—Regional Center	0.61

General Plan Land Classification	Specific Plan Equivalent Land Use Classification	Specific Plan Base Water Demand (mgd)
Open Space—Open Space	N/A	0.00
Open Space—Community Park	N/A	0.00
Open Space—Ponding Basin	Other—Flood Control Basin	0.00
Public Facilities—College	Employment—Institutional	0.19
Public Facilities—School with Park		0.43
Public Facilities—School with Park	Mixed Use—Neighborhood Center	0.91
Buffer—Buffer	Residential—Rural Cluster Residential	1.08
Other—Street/Rail/ Canal, etc.	Other	0.00
Totals	—	19.83
Notes: mgd = million gallons per day Source: Blair, Church & Flynn Consulting Engineers. SEDA Specific Plan Water Technical Study. June 9, 2022.		

Table 3.18-2: Difference Between General Plan and Specific Plan Anticipated Water Demand

SEDA General Plan Total Base Water Demand (mgd)	SEDA Specific Plan Total Base Water Demand (mgd)	Usage Δ (mgd)	Usage Δ (%)
19.5	19.83	0.33	1.7%
Notes: mgd = million gallons per day Source: Blair, Church & Flynn Consulting Engineers. SEDA Specific Plan Water Technical Study. June 9, 2022.			

Recycled Water Supply

Improvements within the Plan Area will be required to facilitate the use of recycled water. Since the recycled water distribution system has not yet been planned for the area, it has been assumed that all land uses that would be eligible for recycled water use will utilize potable water until the recycled water supply and distribution system are available. However, these potable water facilities should be installed in accordance with all recycled water regulations and requirements, allowing a seamless transition to recycled water. This includes installing purple pipe, purple valve boxes, purple irrigation facilities, and maintaining required clearances with other adjacent utilities.

If the Plan Area is expected to be supplied with recycled water from the Fresno-Clovis RWRf, considerable infrastructure will be needed to convey the water from the facility to the Plan Area at a usable flow rate and pressure. Piping of various sizes and booster pump stations will be required, among other improvements. If a satellite RWRf is planned, then the infrastructure required would likely mainly consist of a distribution system of pipelines to convey the recycled water to the users.

Consideration would need to be given to recycled water storage facilities when assessing the demand versus the supply of recycled water produced.

The following paragraphs provide a baseline analysis of the Plan Area to understand a preliminary recycled water demand based solely on estimated area of open space presented in the Specific Plan buildout plan, and only accounting for recycled water that may be used for irrigation of said open space. According to the Specific Plan, each land use classification will encompass some percentage of open space, or “Park Acres.”

The total minimum park acres in the Plan Area equal 464 acres. Utilizing precipitation data obtained from the Western Regional Climate Center for Fresno,⁸⁴ preliminary irrigation calculations were completed to determine the ETWU of the park acres in the Plan Area. Assuming the landscaping would be warm-season turf, and irrigation would mainly be applied via overhead spray/rotors, an annual ETWU with rainfall included of approximately 283 AF (0.3 mgd) was found for the Plan Area (without rainfall yields an ETWU of 1,572 AF, or 1.4 mgd). This represents the minimum required recycled water demand for the park acres included in each of the land use classifications and does not account for any designated open spaces, agricultural areas, or other miscellaneous potential recycled water uses. This has also been completed without knowledge about the available supply of recycled water for the Plan Area and demands will need to be reassessed once a supply is available.

This demand is not a clear indicator of how much recycled water the Plan Area will actually use. Updates to the Recycled Water Master Plan will be required to fully develop the recycled water distribution system for the Plan Area. Determinations of potential recycled water users will need to be made to accurately estimate the anticipated recycled water demand.

Recycled water may be a considerable contributor to the Plan Area’s water supply system. The principal impact of providing recycled water is the overall water supply rather than direct shortages for end users because the ability exists to trade off and supplement recycled water supply from other sources. The recycled water planning documents do not delve into detailed plans for improvements for the Plan Area. Recycled water is not currently utilized in the Plan Area, and there are no portions of the recycled water distribution system that have been constructed within the area. Thus, any proposed recycled water use would necessitate the expansion of the existing recycled water system and installation of new recycled water pipelines, and potentially new treatment and storage facilities to provide sufficient recycled water at buildout conditions.

Because of the lack of planning document details, and the absence of recycled water supply currently in the Plan Area, it is difficult to assess the necessary mitigation measures to accommodate the impacts of new facilities. Continued evaluation of available capacity and construction of improvements is required. Construction and operation of potential improvements could result in project-specific impacts that are not currently known because recycled water facilities have not yet been designed or planned. Until further environmental evaluations have occurred, and further planning is completed, potential impacts would be considered significant without any mitigations. Therefore, impacts related to the construction of new recycled water treatment facilities or

⁸⁴ Western Regional Climate Center. Website: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca3257>. Accessed April 12, 2022.

expansion of baseline facilities would be less than significant with mitigation incorporated. See the Recycled Water Technical Study for a full explanation of the analysis process and subsequent results.

Wastewater Treatment

The Specific Plan proposes a transfer of density from the General Plan conditions to the Specific Plan conditions, which will modify the distribution of wastewater generation in the Plan Area from that originally planned. Generally, wastewater generation is predicted to increase as growth occurs, both in the General Plan and this Specific Plan. For the purposes of this analysis, it was assumed that development of the Plan Area would proceed as described in the Wastewater Technical Study prepared for this Recirculated Draft PEIR—from the General Plan to the Specific Plan land conditions, resulting in new or reoccupied dwelling units and new or repurposed commercial/mixed use space within the Plan Area. Per the proposed Specific Plan, the Plan Area has capacity for 45,000 dwelling units and 5,580 acres of residential space, 1,120 acres of commercial/mixed use space, and 1,820 acres of office/employment space.

As shown in Table 3.18-3, there would be an increase in baseline wastewater generation of 1.46 mgd, or 15 percent when compared to the buildout General Plan conditions. The Plan Area is projected to produce an estimated 11.32 mgd at buildout with Specific Plan land uses compared to 9.86 mgd under the General Plan land uses. Given that the Master Plan utilities were designed based on General Plan buildout conditions, a 15 percent increase would impact associated wastewater treatment requirements and WDRs, and the impacts would be significant without mitigation.

The City would be required to increase wastewater treatment capacity and obtain revised and/or new waste discharge permits. The policies included in the General Plan and the Wastewater Master Plan would reduce the potential impacts associated with increased wastewater generation and treatment requirements; however, these improvements will need to be reevaluated given the projected increase in wastewater generation in the Plan Area, and the City will need to update the Wastewater Master Plan. The implementation of the proposed Specific Plan will result in the need for expansion of the existing wastewater treatment facilities, and new wastewater collection and treatment facilities to serve future land uses in the Plan Area.

A summary of master planned proposed wastewater treatment facilities and collection infrastructure that should accommodate future development associated with the Specific Plan include:

- Wastewater Master Plan Update:⁸⁵
 - Large-diameter trunk sewers, arterial lateral sewer mains, and a satellite wastewater reclamation/scalping plant.
- Expansion of Fresno-Clovis RWRF wastewater treatment capacity.
- Increased size of planned wastewater collection facilities.
- Various wastewater improvement/rehabilitation plans within the City to improve overall wastewater collection and treatment system conditions.

⁸⁵ Carollo Engineers, and Blair, Church & Flynn Consulting Engineers, Inc. 2015. City of Fresno Wastewater Collection System Master Plan Update. September.

Table 3.18-3: Comparison of General and Specific Plan Anticipated Wastewater Generation per Land Use Classification

GP Land Use Classification	GP Base Wastewater (mgd)	SP Equivalent Land Use Classification	SP Base Wastewater (mgd)	Usage Δ (mgd)	Usage Δ (%)
Residential—Low Density	1.02	Residential—Rural Residential	1.22	0.20	19.8%
Residential—Medium Density	2.50	Residential—Neighborhood Residential	2.44	-0.07	-2.6%
Residential—Urban Neighborhood	3.12	Residential—Mixed Residential	3.59	0.47	15.1%
Employment—Office	0.14	Employment—Office Center	0.15	0.01	7.0%
Employment—Business Park	0.01	Employment—Flexible Research and Development	1.04	0.06	5.8%
Employment—Regional Business Park	0.98				
Mixed Use -Corridor/Center Mixed Use	0.88	Mixed Used—Community Center	0.77	-0.12	-13.2%
Mixed Use—Regional Mixed Use	0.69	Mixed Use—Regional Center	0.96	0.27	39.1%
Open Space—Open Space	0.00	N/A	0.00	0.00	0.0%
Open Space—Community Park	0.00	N/A	0.00	0.00	0.0%
Open Space—Ponding Basin	0.00	Other—Flood Control Basin	0.00	0.00	0.0%
Public Facilities—College	0.08	Employment—Institutional	0.19	0.00	0.00%
Public Facilities—School with Park	0.10				
Public Facilities—School with Park	0.29	Mixed Use—Neighborhood Center	0.49	0.20	69.8%
Buffer—Buffer	0.04	Residential—Rural Cluster Residential	0.46	0.42	1,186.3%
Other—Street/Rail/ Canal, etc.	0.00	Other	0.00	0.00	0.0%
Totals	9.86	Totals	11.32	1.46	15%

Notes:

GP = General Plan; mgd = million gallons per day; SP = Specific Plan

Source: Blair, Church & Flynn Consulting Engineers. SEDA Specific Plan Wastewater Technical Study. May 13, 2022.

Stormwater Drainage

As development of the Plan Area occurs under the Specific Plan, new and expanded storm drain facilities will be necessary to adequately accommodate the increase in stormwater flows due to an increase in impervious surfaces. Implementation of the Specific Plan would result in a significant impact on existing drainage facilities. The transition from General Plan to Specific Plan, though, proposes a modest transfer of density and land uses throughout the Plan Area, which will modify the distribution of stormwater generation. Under both the General Plan and Specific Plan, stormwater generation will continue to increase as growth continues.

The buildout of the Specific Plan when compared to the General Plan would result in a net increase of 248 AF in expected runoff; FMFCD allows a 20 percent change in required basin volumes before the basin must be modified. Table 3.18-4 shows that all existing basins that are encompassed in or serve SEDA do not exceed a 20 percent change in volume or exceed its capacity.

Table 3.18-5 shows that the buildout of the Specific Plan results in a change in required volume of more than 20 percent in one basin (Basin DX), and the exceedance of one basin's proposed capacity (Basin DW). These two basins will need to be revised by resizing or relocating.

The Plan Area does have master planned FMFCD utilities, including inlets, pipelines, basins, and drainage areas, which have been designed to accommodate the General Plan developments, and are being modified for the SEDA Specific Plan developments by FMFCD. The majority of the planned facilities will be sufficient to provide drainage for the Specific Plan improvements without significant environmental impacts, except for Basin DW and DX which will require reassessment and possibly resizing or relocation. FMFCD plans for drainage facilities but does not construct facilities until such time as development. Therefore, impacts related to the construction of new storm drain treatment facilities or expansion of baseline facilities would be less than significant with mitigation incorporated. See the Storm Drain Technical Study for a full explanation of the analysis process and subsequent results.

Mitigation measures related to storm drain systems are established and required in the Storm Drain Master Plan and other applicable City planning documents. Stormwater collection and handling must adhere to these mitigation measures.

A summary of master planned proposed storm drain facilities and collection infrastructure that should accommodate future development associated with the Specific Plan include the design and construction of Basins DS, DT, DU, DV, DW, DX, DY, DZ, and their associated collection facilities, including but not limited to inlets, manholes, catch basins, pipelines, and pump stations.

Table 3.18-4: General Plan and Specific Plan Anticipated Runoff Volume for Existing Basins Encompassed within SEDA Specific Plan Area

Drainage Area	GP FMFCD Design Runoff Volume (acre-feet)	SP Runoff Volume Increase (acre-feet)	SP Runoff Volume Increase (%)	GP FMFCD Basin Design Volume (acre-feet)	Remaining Basin Volume (acre-feet)
BG	213.2	8.50	4.0%	232.1	10.4
BL	274.0	4.00	1.5%	301.1	23.1
BM	379.3	0.46	0.1%	390.4	10.7
BS	332.2	5.34	1.6%	396.7	59.2
CS	310.4	4.75	1.5%	346.5	31.3

Notes:

FMFCD = Fresno Metropolitan Flood Control District

GP = General Plan

SP = Specific Plan

Source: Blair, Church & Flynn Consulting Engineers. SEDA Specific Plan Storm Drain Technical Study. June 10, 2022.

Table 3.18-5: General Plan and Specific Plan Anticipated Runoff Volume for Proposed Basins within SEDA Specific Plan Area

Drainage Area	GP FMFCD Design Runoff Volume (acre-feet)	SP Runoff Volume Increase (acre-feet)	SP Runoff Volume Increase (%)	GP FMFCD Basin Design Volume (acre-feet)	Remaining Basin Volume (acre-feet)
DS	433.8	85.2	19.6%	1,383.3	864.3
DT	207.3	18.7	9.0%	232.4	6.4
DU	305.0	3.8	1.3%	323.8	15.0
DV	171.7	6.6	3.8%	230.0	51.7
DW	212.3	34.4	16.2%	233.9	-12.8
DX	215.7	54.8	25.4%	304.5	34.0
DY	279.9	10.4	3.7%	295.2	4.9
DZ	237.4	11.1	4.7%	263.6	15.1
Notes: FMFCD = Fresno Metropolitan Flood Control District GP = General Plan SP = Specific Plan Source: Blair, Church & Flynn Consulting Engineers. SEDA Specific Plan Storm Drain Technical Study. June 10, 2022.					

Electricity, Natural Gas, and Telecommunications

Electricity, natural gas, and telecommunications utilities respond to increased demands in various ways. These may include temporary stoppages or rolling blackouts, extension of existing infrastructure, or construction of new facilities.

Each of these utility providers prepares long-range plans to accommodate projected growth in their service areas. For example, PG&E provides annual sustainability reports that outline strategies to accommodate future growth and ensure reliability of electrical and natural gas service. As indicated in the 2021 Corporate Sustainability Report, PG&E has requested approval for 387 megawatts of additional energy storage from six projects slated for completion by August 2023. These projects will provide “system reliability procurement that will help integrate increasing amounts of renewable energy and meet peak summer demand.” Telecommunications companies continually expand infrastructure to serve the growing population. These planning efforts take into account growth projections, including the growth under the proposed project. Because the proposed project would not result in unplanned growth, the majority of growth would be infill, and because the utility providers take into consideration all future growth projections in their planning efforts, the proposed project would not be expected to require or result in new or expanded electricity, natural gas, or telecommunications facilities beyond those already planned. Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implementation of all other mitigation measures in this Recirculated Draft PEIR would be required for all construction activities. Therefore, construction of new utilities would cause less than significant impacts with mitigation incorporated, with regard to the other potential environmental impacts discussed in this Recirculated Draft PEIR. See the Executive Summary for a summary of all mitigation measures. Mitigation measures for all resource topics in this Recirculated Draft PEIR would be applicable to construction of new or expanded utility infrastructure.

Specific mitigation measures include the following:

- MM UTIL-1a** The City shall evaluate the water conveyance system at the time that discretionary projects are submitted for approval by the City, and the City shall not approve development that would demand additional water and exceed the capacity of a facility until additional capacity is provided. The City shall evaluate proposed water capacity and conveyance improvements provided in the City Metro Plan and General Plan for potential environmental impacts, and shall construct such improvements prior to exceedance of capacity to accommodate full buildout of the Specific Plan.
- MM UTIL-1b** The City shall evaluate the water supply system at the time that discretionary projects are submitted for approval by the City, and the City shall not approve development that would demand additional water until additional sources are secured and provided for future development. The City shall evaluate proposed water supply improvements for potential environmental impacts, and shall construct such improvements prior to exceedance of demand to accommodate full buildout of the Specific Plan.
- MM UTIL-1c** The City shall evaluate the wastewater system at the time that discretionary projects are submitted for approval by the City, and the City shall not approve development that would contribute wastewater to the wastewater treatment system that would exceed capacity until additional capacity is provided. The City shall evaluate proposed wastewater treatment improvements provided in the City Wastewater Master Plan and General Plan for potential environmental impacts, and shall construct such improvements prior to exceedance of capacity to accommodate full buildout of the Specific Plan.
- MM UTIL-1d** Consistent with the Sewer System Management Plan, the City shall evaluate the wastewater collection system at the time that discretionary projects are submitted for approval by the City, the City shall not approve development that would generate additional wastewater and exceed the capacity of a facility until additional capacity is provided. The City shall evaluate proposed wastewater collection improvements provided in the City Wastewater Master Plan and General Plan for potential environmental impacts, and shall construct such improvements prior to exceedance of capacity to accommodate full buildout of the Specific Plan.

- MM UTIL-1e** The City shall support the Fresno Metropolitan Flood Control District (FMFCD) in evaluating the stormwater collection system and implementing the District Services Plan and Storm Drainage and Flood Control Master Plan, and in constructing such improvements to the storm drain system prior to exceedance of capacity to accommodate full buildout of the Specific Plan. The City shall complete these evaluations prior to approving any new project applications for future development in the Plan Area that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval.
- MM UTIL-1f** At the time discretionary projects are submitted, the City shall require project-specific environmental evaluations for the expansion or relocation of electric, natural gas, or telecommunication facilities be completed prior to project approval.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Water Supplies

Impact UTIL-2: **The proposed project could have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.**

Impact Analysis

As shown by the 1.7 percent increase in water demand, existing City water supplies could be sufficient to supply the future development in SEDA in addition to the existing demands. Current City water supply sources are as follows:

- Groundwater—The City owns and operates 270 municipal water wells with 202 active wells; projected groundwater supply for the City of Fresno in 2035 is 149,100 AFY.
- Surface Water—The City owns and operates two (2) surface water treatment facilities—the NESWTF and the SESWTF. The NESWTF has a design capacity of 30 mgd expandable to 60 mgd, and the SESWTF has a design capacity of 54 mgd expandable to 80 mgd. The surface water is obtained from the Kings River via an agreement with FID, and from the Friant-Kern Canal through an agreement with the USBR. Treated surface water is used for potable uses and groundwater recharge. The projected surface water supply for the City of Fresno in 2035 is 191,600 AFY (60,000 via USBR, 131,600 via FID).
- Recycled Water—The City owns and operates the Fresno-Clovis RWRF and the NFWRF, which collects and treats wastewater from City users to various levels of treatment for nonpotable uses. The Fresno-Clovis RWRF produces undisinfected secondary effluent for use as restricted irrigation water for farmland and for groundwater recharge via discharge into adjacent percolation ponds, and disinfected tertiary effluent for distribution through the City's recycled water distribution system for nonpotable uses, including landscape irrigation and industrial processes. The NFWRF collects and treats wastewater to a disinfected tertiary level for use as landscape irrigation supply for the Copper River Ranch Golf Course. The projected supply of recycled water for the City of Fresno in 2035 is 5,910 AFY.

The UWMP presents actual data available for water supply and demand for the year 2020, as well as projected water usage. For 2020, the actual total potable water demand for the City was 121,993 AFY, and the projected potable water demand for the City in 2035 is 154,210 AFY. Additionally, the projected nonpotable water demand for the City for groundwater recharge is 68,100 AFY for 2035. The estimated groundwater yield for the City in 2035 was projected to be 149,100 AF, assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA, indicating that groundwater alone will not be sufficient to meet future City demands, including those for SEDA.⁸⁶

However, estimated surface water supplies for the City are projected to be 191,600 AF for 2035 (60,000 via USBR, 131,600 via FID) during normal water years, as well as 5,910 AF of recycled water. Total projected water supply for the City in 2035 is 346,610 AF during normal water years and assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA, and total projected demand is 222,310 AF. The estimated increase in total water use for SEDA in accordance with the Specific Plan selected alternative is 0.33 mgd, or 370 AFY. This results in a modified projected potable demand for the City of 154,580 AFY, with a total water demand (potable and nonpotable) of 222,680 AFY.

In the event of a single dry year, the projected water supply for 2035 is 200,862 AF assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA and the projected demand is 184,174 AF; for multiple dry years, the projected water supplies and demands are shown in Table 3.18-6.

Table 3.18-6: Multiple Dry Years Supply and Demand Comparisons (DWR 7-4R) (2020 UWMP Table 7-3)

		2025	2030	2035	2040	2045
First Year	Supply Total (AFY)	273,725	279,265	284,735	290,125	295,455
	Demand Total (AFY)	199,204	212,756	222,310	231,876	241,447
	Difference (AFY)	74,521	66,509	62,425	58,249	54,008
Second Year	Supply Total (AFY)	274,626	280,166	285,636	291,026	296,356
	Demand Total (AFY)	199,204	212,756	222,310	231,876	241,447
	Difference (AFY)	75,422	67,410	63,326	59,150	54,909
Third Year	Supply Total (AFY)	217,568	223,108	228,578	233,968	239,298
	Demand Total (AFY)	190,267	193,637	197,736	201,753	205,708
	Difference (AFY)	27,301	29,471	30,842	32,215	33,589
Fourth Year	Supply Total (AFY)	189,852	195,392	200,862	206,252	211,582
	Demand Total (AFY)	162,551	165,920	170,020	174,036	177,992
	Difference (AFY)	27,301	29,471	30,842	32,215	33,589

⁸⁶ Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan. July

		2025	2030	2035	2040	2045
Fifth Year	Supply Total (AFY)	314,840	320,380	325,850	331,240	336,570
	Demand Total (AFY)	199,204	212,756	222,310	231,876	241,447
	Difference (AFY)	115,636	107,624	103,540	99,364	95,123

Source: Water Systems Consulting, Inc. 2021. City of Fresno Urban Water Management Plan. July.

The City Metro Plan Update will include proposed infrastructure improvements necessary to sustain development in SEDA, including the construction of new groundwater wells, surface water treatment plant expansions, and expansion of the Regional Transmission water distribution system. Impacts would be less than significant with the incorporation of mitigation and compliance with all regulatory requirements and proposed policies for the proposed Specific Plan.

Implementation of the proposed plan would result in a total buildout of approximately 45,000 dwelling units and over 3,000 acres (130+ million square feet) of mixed use, commercial, office, retail, public, and open spaces throughout the Plan Area. The General Plan anticipated that approximately 15,000 dwelling units would be built out in the Plan Area by 2035. The proposed increase in development would result in a long-term increase in water demand with each new land use. Additionally, construction activities associated with development will require the use of water for various purposes. Operations of construction equipment and tools, and construction operations such as excavation, grading, and demolition would increase impacts as well.

Future planned improvements to the water conveyance and treatment infrastructure in the Plan Area, include:

- New municipal groundwater wells.
 - Wellhead treatment as needed.
- Expansion of the NESWTF.
- New water storage tanks and booster pump stations.
- Extension of 48-inch diameter RTM in Olive Avenue.
- New Transmission Grid Mains.
- New recharge inter-ties to FMFCD basins.

Additionally, updates to the Recycled Water Master Plan would help ensure that adequate water is available to serve the development under the Specific Plan.

Since the increase in water demand for the Specific Plan Area is 1.7 percent from the General Plan condition, the impacts to water supply could be potentially significant; upon compliance with regulatory requirements, proposed policies for full implementation of the proposed Specific Plan, proposed mitigation measures, and construction of proposed water supply and distribution system infrastructure, the impact could be reduced. The normal water year supply projected for the City of Fresno in 2035 is 346,610 AF, and total projected demand is 222,310 AF. All water supply scenarios for dry years for 2035 are sufficient to accommodate the increase in water demand for the Specific

Plan Area of 370 AFY assuming groundwater characteristics are not altered due to climatic events or regulatory influences from SGMA; see Table 3.18-6.

A WSA has been completed for the proposed project and is included in Appendix I. As shown in the WSA, the total projected water supplies 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. As shown in Table 7.1 of the WSA, demand within the City's service area is not expected to exceed the City's supplies in any normal, single dry, or multiple dry year between 2020 and 2045. The projected increase in water demand for the proposed project is 0.33 MGD, or approximately 370 AFY. As shown in the WSA, the increase in water demand due to the proposed project would not exceed the projected available water supplies for the normal, single dry, and multiple dry years. See the WSA for additional information and further analysis.

Continued implementation of Objective PU-8 and Policies PU-8-a through PU-8-g of the approved General Plan would apply to the proposed project.

Level of Significance

Potentially significant impact.

Mitigation Measures

Implement MM HYD-2b, MM HYD-2c, MM UTIL-1a, MM UTIL-1b, and the following:

- MM UTIL-2a** The City shall develop and implement water conservation measures to reduce the per capita water use, and continue to refine and implement water saving and conservation standards for new developments approved under the Specific Plan. The City shall complete these measures and standards prior to approving any new project applications for future development in the Plan Area that require a discretionary approval and shall confirm that each project has incorporated the refined measures and standards prior to issuing approval.
- MM UTIL-2b** The City shall continue to implement the City of Fresno Water Conservation Program, as may be updated, and periodically update restrictions on water uses, and evaluate the feasibility of the conservation target identified as part of the Fresno General Plan. The City shall complete these measures prior to approving any new project applications for future development in the Plan Area that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval. The City shall continue to implement Objective RC-7 and Policies RC-7-a through RC-7-l of Chapter 7, "Resource Conservation and Resilience," and Objective PU-8 and Policies PU-8-a through PU-8-g of Chapter 6, "Public Utilities and Services," of the approved Fresno General Plan.
- MM UTIL-2c** The City shall refine landscape water conservation standards that will apply to new development installed landscapes, building on the State Model Water Efficient Landscape Ordinance (MWEL) and other State regulations. The City shall complete

these standards prior to approving any new project applications for future development in the Plan Area that require a discretionary approval and shall confirm that each project has incorporated any resulting standards prior to issuing approval.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Wastewater Treatment Capacity

Impact UTIL-3:	The proposed project could result in a determination by the wastewater treatment provider which serves or may serve the proposed project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
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Impact Analysis

The potential long-term impacts related to wastewater collection, treatment, and disposal requirements of the General Plan versus the Specific Plan differ by 15 percent, or 1.46 mgd, and are considered significant for full implementation of the proposed Specific Plan. Development in accordance with the proposed Specific Plan would result in a significant impact on the existing wastewater treatment facilities and their capacities and require an increase of wastewater treatment capacities in the form of expansions to existing facilities or the construction of new facilities.

The following proposed Wastewater Master Plan improvements could help accommodate future development associated with the Specific Plan:

- Expansion of Fresno-Clovis RWRf wastewater treatment capacity.
- SEDA Reclamation Facility—A satellite treatment facility in the southeast portion of the City to serve the SEDA Plan Area.
- Increased size of planned wastewater collection facilities.
- Various wastewater improvement/rehabilitation plans within the City to improve overall wastewater collection and treatment system conditions.

Other additional proposed Wastewater Master Plan improvements would help with conveyance of wastewater to treatment facilities, including:

- New trunk sewers and arterial lateral sewer mains.

Additionally, the implementation of the Specific Plan policies and improvements would result in significant impacts associated with wastewater treatment requirements and WDRs.

The policies in the General Plan are designed to reduce potential effects associated with expansion of wastewater treatment capacity, including those associated with the proposed Specific Plan. The measures required by the General Plan and the Wastewater Master Plan (listed above) also include surface water treatment facilities, additional wastewater collection system infrastructure, water conveyance facilities, and additional pipeline and storage facilities.

Implementation of the proposed plan would result in a total buildout of approximately 45,000 dwelling units and over 3,000 acres (130+ million square feet) of mixed use, commercial, office, retail, public, and open spaces throughout the Specific Plan Area. The proposed increase in development would result in a long-term increase in wastewater generation with each new land use. Additionally, construction activities associated with development would generate wastewater.

The proposed Specific Plan would require new connections to and expansion of the existing wastewater infrastructure to serve future development. Construction of this expansion and new connections have been evaluated as part of this Recirculated Draft PEIR, and the implementation of these capital improvements would ensure that the City's wastewater conveyance and treatment infrastructure would be sufficient to accommodate the needs of the Specific Plan development. Compliance with all regulatory requirements and policies in the General Plan and the Specific Plan would further ensure adequate wastewater treatment and conveyance capacity. The impact would be less than significant with mitigations incorporated.

Level of Significance

Potentially significant impact.

Mitigation Measures

Implement MM UTIL-1c and MM UTIL-1d.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Attainment of Solid Waste Reduction Goals

Impact UTIL-4:	The proposed project could 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.
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Impact Analysis

New residential, commercial, mixed use, and public land uses in the Specific Plan Area would increase the amount of solid waste generated by residents and businesses. The increase in growth and development as a result of the implementation of the proposed Specific Plan would result in an increase of solid waste to transfer stations and landfills and contribute to an increased demand for solid waste services throughout the Plan Area.

Based on the estimated closure dates of the American Avenue Landfill in 2031 and the Clovis Landfill in 2047, there is a potential for additional landfill capacity needed to accommodate the additional development from this Specific Plan. Therefore, development under the proposed Specific Plan could result in a significant impact on landfill capacity.

Implementation of the proposed plan would result in a total buildout of approximately 45,000 dwelling units and over 3,000 acres (130+ million square feet) of mixed use, commercial, office, retail, public, and open spaces throughout the Specific Plan Area. The proposed increase in development would result in a long-term increase in solid waste generation with each new land use.

To reduce the significant impacts associated with the solid waste disposal, the City will need to increase disposal capacity. The policies in the General Plan are designed to reduce the potential effect associated with solid waste disposal including those associated with the proposed Specific Plan. The City is responsible for evaluating additional landfill locations to ensure adequate landfill capacity for future development, and MM UTIL-4 requires that the City shall not approve development that could contribute solid waste to a landfill that is at capacity until such additional capacity has been provided. All future development under the Specific Plan would be required to comply with State and local requirements for reduction of solid waste going to landfills.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM UTIL-4 The City shall evaluate additional landfill locations at the time discretionary projects are submitted and shall not approve development that could contribute solid waste to a landfill that is at capacity until additional capacity is provided.

Level of Significance After Mitigation

Less than significant impact with mitigation incorporated.

Solid Waste Regulations

Impact UTIL-5:	The proposed project would comply with federal, State, and local statutes and regulations related to solid waste.
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Impact Analysis

Construction and operational activities that generate solid waste are handled, transported, and disposed of in accordance with applicable federal, State, and local regulations pertaining to municipal waste. With development in accordance with the proposed Specific Plan, solid waste would continue to be handled, transported, and disposed of in accordance with all applicable federal, State, and local regulations. The City currently has a number of provisions that require or promote recycling and waste reduction. See Section 3.18.3 above for a discussion of regulations related to solid waste. Because all development projects within SEDA would be required to comply with regulations related to solid waste, the proposed project would not include any activities or components that would conflict with federal, State, or local statutes or regulations related to solid waste. Solid waste disposal service impacts would be less than significant upon compliance with regulatory requirements and proposed policies for full implementation of the proposed Specific Plan.

All construction and operational activities would be required to comply with regulations related to solid waste. The proposed project does not include any activities or components that would conflict with regulations related to solid waste. Therefore, construction impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

3.18.7 - Cumulative Impacts

The geographic context for evaluation of cumulative impacts related to utilities varies for the different utility providers and is specified below for each utility.

Past and present development in the geographic context has resulted in an increase in demand for water, wastewater treatment and stormwater capacity, landfill capacity, and energy facilities to adequately serve the development. The respective service providers have responded to these increasing demands by constructing new infrastructure. In addition, each utility type has a management plan in place that addresses future projected demands for planned development. These management plans are routinely updated to account for this development. Construction of individual infrastructure projects has likely resulted in discrete impacts in various issue areas, such as aesthetics, air quality, biological resources, etc. Therefore, there could be a cumulatively significant impact from construction of past and present infrastructure projects. Future development could contribute to this cumulative impact.

The purpose of the SEDA Specific Plan is to identify and develop utilities and service systems within the project area, and to generally eliminate cumulative impacts outside of it. The impacts of anticipated development and projects resulting from the Specific Plan have been analyzed in this Recirculated Draft PEIR. Most impacts are localized and would occur at different times as the Specific Plan is built out. The proposed project would comply with all State and local regulations related to utilities. Therefore, the proposed project would generally not combine with other projects to result in a cumulatively considerable contribution to cumulative impacts. Where there are regional impacts, they would occur on a scale and of a difficulty that cannot be addressed within a Specific Plan and are being addressed with long-term planning by regional groups and State agencies. However, some potential cumulative impacts were identified and are discussed below.

Water

The geographic context for cumulative impacts regarding water supply and water distribution system infrastructure is the Specific Plan Area and the groundwater basins from which the Plan Area derives water. As discussed, the potential long-term impacts related to water supply requirements of the baseline General Plan conditions for the Plan Area versus the proposed Specific Plan conditions for the Plan Area differ by 1.7 percent. Water supply and water treatment impacts would be less than significant upon compliance with regulatory requirements and proposed policies for full implementation of the proposed Specific Plan, and incorporation of all mitigation measures.

Recycled Water

The geographic context for cumulative impacts regarding recycled water supply and recycled water distribution system infrastructure is the Specific Plan Area and the City of Fresno which will all be recipients of the recycled water supply. As discussed, the potential long-term impacts related to recycled water supply requirements of the Plan Area cannot be fully determined at this time because recycled water is not yet utilized in the Plan Area, and the Recycled Water planning documents do not account for the development of a recycled water distribution system within the Plan Area until after the planned development of the City's growth areas. Improvements within the Plan Area will be required to facilitate the use of recycled water. Preliminary irrigation calculations were completed to determine the ETWU of the park acres in the Plan Area. Assuming the landscaping would be warm-season turf, and irrigation would mainly be applied via overhead spray/rotors, an annual ETWU with rainfall included of approximately 283 AF (0.3 MGD) was found for the Plan Area. Recycled water supply and wastewater treatment impacts would be less than significant upon compliance with regulatory requirements and proposed policies for full implementation of the proposed Specific Plan, and incorporation of all mitigation measures.

Wastewater

The study area for cumulative impacts regarding wastewater is the Specific Plan Area, the City of Fresno, and the City of Clovis because the City of Fresno acts as the Regional Sewering Agency and is responsible for operating the Fresno-Clovis RWRf, and the RWRf serves Clovis. As discussed, there would be an increase in baseline wastewater generation for the Specific Plan of 1.46 mgd, or 15 percent when compared to the buildout General Plan conditions. Given that the Master Plan utilities were designed based on General Plan buildout conditions, a 15 percent increase would impact associated wastewater treatment requirements and WDRs, and the impacts would be significant without mitigation, as would the cumulative impacts.

There are also a number of public utility districts, water districts, and other municipalities near the Specific Plan Area, including the Pinedale Public Utility District, the Pinedale County Water District, the Malaga Water District, and the Bakman Water Company. These entities could have construction projects of new wastewater treatment facilities or other urban development that could cause similar significant environmental impacts as discussed above. Since the proposed Specific Plan would result in less than significant environmental effects from the construction of expanded and new wastewater treatment and conveyance facilities, the proposed project's contribution to cumulative environmental impacts would not be considerable, and the proposed project would result in a less than significant cumulative environmental impact with the incorporation of all mitigation measures.

Storm Drainage

The study area for cumulative impacts regarding stormwater drainage is the Fresno-Clovis Metropolitan Area because the FMFCD service area includes almost the entire portion of the Fresno-Clovis Metropolitan Area. Stormwater and flood control system impacts would be less than significant upon compliance with regulatory requirements and proposed policies for full implementation of the proposed Specific Plan.

The buildout of the Specific Plan when compared to the General Plan would result in a net increase of 248 AF in expected runoff; FMFCD allows a 20 percent change in required basin volumes before the basin must be modified. The buildout of the Specific Plan would result in a change in required volume of more than 20 percent in one proposed basin (Basin DX), and the exceedance of one proposed basin's capacity (Basin DW). These two basins will need to be revised by resizing or relocating.

Mitigation measures related to storm drain systems are established in the Storm Drain Master Plan and have become standard operating practices. Stormwater collection and handling must adhere to the mitigation measures identified in the 2014 City of Fresno Master Plan EIR as well as regulatory requirements that codify the same fundamental practices.

Construction projects that are located immediately adjacent to the FMFCD boundary could cause similar significant environmental impacts as discussed above. Since the proposed Specific Plan would result in less than significant environmental effects from the construction of new stormwater drainage facilities, the proposed project's contribution to cumulative environmental impacts would not be cumulatively considerable, and the proposed project would result in a less than significant cumulative environmental impact with the incorporation of all mitigation measures.

Solid Waste

The study area for cumulative impacts regarding solid waste is the entire County of Fresno because waste from throughout the County could be accommodated at primarily three landfills within the County including the American Avenue Landfill in Kerman, the Clovis Landfill in Clovis, and the Coalinga Landfill in Coalinga.

Shortage of waste disposal capacity can have significant impacts on adjacent areas. If refuse is exported to adjacent areas with existing spare capacity, significant impacts due to increased travel distances can result in additional transportation related impacts. The cumulative impact would be less than significant with incorporation of all mitigation measures, including MM UTIL-4.

Electricity, Natural Gas, and Telecommunications

The geographic context for an analysis of cumulative impacts to electricity and natural gas is the PG&E service area. The context for telecommunications is the City of Fresno and the Specific Plan Area.

Past and present development has resulted in increased demand for electricity, natural gas, and telecommunications services. Electricity, natural gas, and telecommunications utilities respond to increased demands in various ways. These may include temporary stoppages or rolling blackouts, extension of existing infrastructure, or construction of new facilities. Each of these utility providers prepares long-range plans to accommodate projected growth in their service areas. For example, PG&E provides annual sustainability reports that outline strategies to accommodate future growth and ensure reliability of electrical and natural gas service. As indicated in the 2021 Corporate Sustainability Report, PG&E has requested approval for 387 megawatts of additional energy storage from six projects slated for completion by August 2023. These projects will provide "system reliability

procurement that will help integrate increasing amounts of renewable energy and meet peak summer demand.” Telecommunications companies continually expand infrastructure to serve the growing population. These planning efforts take into account growth projections, including the growth under the proposed project. Past, present, and future development has been and will continue to be accounted for in the utility plans, which are updated regularly to ensure continuity of service.

Because the proposed project would not result in unplanned growth, the majority of growth would be infill, and because the utility providers take into consideration all future growth projections in their planning efforts, the proposed project would not be expected to require or result in new or expanded electricity, natural gas, or telecommunications facilities beyond those already planned. Cumulative projects would be included in planned growth, and impacts would be less than significant.

Level of Cumulative Significance Before Mitigation

Water—Potentially significant impact.

Wastewater—Potentially significant impact.

Storm Drainage—Potentially significant impact.

Solid Waste—Potentially significant impact.

Electricity, Natural Gas, and Telecommunications—Less than significant impact.

Cumulative Mitigation Measures

Mitigation measures identified for the various resource topics in this Recirculated Draft PEIR would reduce the cumulative impacts of construction of utility infrastructure to less than significant.

Implement MM HYD-2b, MMHYD-2c, MM UTIL-1a, MM UTIL-1b, MM UTIL-1c, MM UTIL-1d, MM UTIL-1e, MM UTIL-1f, MM UTIL-2a, MM UTIL-2b, MM UTIL-2c, and MM UTIL-4.

Level of Cumulative Significance After Mitigation

Less than significant impact with mitigation incorporated.

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3.19 - Wildfire

3.19.1 - Introduction

This section describes the existing wildfire conditions in the project area as well as the relevant regulatory framework. This section also evaluates the possible impacts related to wildfire that could result from implementation of the proposed project. Information in this section is based on information provided by the Fresno General Plan (General Plan), Fresno Southeast Development Area (SEDA) Specific Plan (Specific Plan), and the California Department of Fire and Forestry Protection (CAL FIRE). Four public comments were received during the Environmental Impact Report (EIR) scoping period related to wildfire:

- Request that the Draft Program Environmental Impact Report (Draft PEIR) identifies the locations within the Plan Area that are within Special Flood Hazard Areas, which would be subject to Fresno County Ordinance Code Title 15, Chapter 15.48, as well as Federal Emergency Management Agency (FEMA) flood elevation requirements as applicable.

3.19.2 - Environmental Setting

Wildfire Hazard Area Designations

According to the CAL FIRE Fire and Resource Assessment Program, the Plan Area does not contain any lands within the State Responsibility Area (SRA) or lands classified as Very High Fire Hazard Severity Zone (FHSZ) within the Local Responsibility Area (LRA). The nearest Very High FHSZ to the Plan Area is located approximately 25 miles northeast of the Plan Area near Pine Flat Lake.¹ There are no wildlands located within or adjacent to the Plan Area.²

Wildfire-conductive Conditions

The Plan Area is located within the Central Valley and is relatively flat. The majority of the Plan Area is located within agricultural lands. Similar uses surround the Plan Area with mostly agricultural properties and rural residential uses to the north, west, and south. The Sierra Nevada foothills to the north and east of the City provide the nearest areas where large expanses of undeveloped properties occur. Because of the topography and the distance between the Plan Area and undeveloped areas, the primary fire hazard concern within the City consists of the potential for structure fires in developed areas.

Emergency and Evacuation Routes/Access

Both the City and County of Fresno implement programs to facilitate emergency preparedness for other types of incidents within the Plan Area, such as fires. Specifically, the City has an Emergency Operations Plan (EOP) that describes what the City's actions will be during a response to an emergency. This plan also describes the role of the Emergency Operations Center (EOC) and the

¹ California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fire Hazard Severity Zones in SRA. Website: https://osfm.fire.ca.gov/media/6671/fhszs_map10.pdf. Accessed June 9, 2022.

² City of Fresno. 2018. Fresno County Multi-Hazard Mitigation Plan. Figure 4.53 Fresno County's Wildfire Severity Zones. Website: <https://www.co.fresno.ca.us/home/showdocument?id=24743>. Accessed May 17, 2022.

coordination that occurs between the EOC, City departments, and other response agencies. The plan establishes a requirement for the emergency management organization to mitigate any significant emergencies affecting the City. The plan also identifies the policies, responsibilities, and procedures required to protect the health and safety of City communities, public and private property, and the environmental effects of natural or technological disasters. In addition, the plan establishes the operation concepts and procedures associated within initial response operations (field response) to emergencies, the extended response operations (City of Fresno EOC Activities), and the recovery process. Furthermore, the plan complies with the State of California EOP “Cross Walk” checklist for determining whether an emergency plan has addressed critical elements of California’s Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS).

The Fresno County Sheriff-Coroner’s Office determines the need for evacuations and notifies the public regarding evacuation warnings and orders. The Sheriff-Coroner’s Office coordinates the evacuation of the public as well as animals and livestock from hazardous areas during an emergency or disaster.

The County of Fresno (County) has a Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), which is a plan that aims to reduce or eliminate long-term risk to people or property from natural hazards. The MJHMP was developed in 2007-2008 and FEMA approved it in 2009. The MJHMP was comprehensively updated in 2017-2018 and was adopted by the City in May 2018. The MJHMP was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 so that the County and the jurisdictions within it would be eligible for FEMA Hazard Mitigation Assistance Grants. The MJHMP identifies goals and objectives for reducing the County’s vulnerability to hazards and recommends actions to meet them. The MJHMP contains the following mitigation actions for the City of Fresno:

- Establish a post-disaster action plan for the City’s continuity of its Operations Plan.
- Improve the City’s capabilities for sheltering animals in a disaster.
- Train and certify City inspectors to conduct a post-disaster damage assessment.
- Implement a flood awareness program for the public.
- Develop a recycled water distribution system in the southwest portion of the City.
- Comply with the Sustainable Groundwater Management Act, including groundwater sustainability planning and implementation.

The MJHMP does not have any mitigation actions for the City related to wildlife. However, the County does contain a mitigation action for CAL FIRE to develop wildfire Defensible Fuel Modification Zones in area of tree mortality. The foothill and mountain areas of the County have been severely impacted by the drought and subsequent bark beetle outbreak since 2014. This has caused tree mortality across 216,000 acres and over 21 million trees have died, creating an additional fuel load. All the communities in these areas are at an increased risk of a damaging wildland fire due to the mortality and fuel loading. These areas need increased Defensible Fuel Modification Zones and hazard tree removal to reduce the damaging effects of a wildland fire.

3.19.3 - 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 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

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. When Contra Costa 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 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 the City as the LRA of 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 2022 California Building Standards Code (CBC), which is located in Part 2 of Title 24 of the California Code of Regulations. The 2022 CBC is based on the 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 and 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 arrestors³ 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:

³ 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).

- Earthmoving and portable equipment with internal combustion engines would be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (California 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); 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).

Regional

County of Fresno Multi-Jurisdictional Local Hazard Mitigation Plan

The purpose of a Local Hazard Mitigation Plan is to reduce or eliminate long-term risk to human life and property resulting from hazards. A Local Hazard Mitigation Plan recognizes risks before they occur, as well as identifies resources, information, and strategies for emergency response. Fresno County, with participation from 17 jurisdictions, is the Lead Agency on the MJHMP. In 2018, the Fresno County Board of Supervisors adopted the MJHMP, which includes a portion listing information most relevant to the City in the areas of health, infrastructure, housing, government, environment, and land use.

Local

City of Fresno Emergency Operation Plan

The California Emergency Services Act requires cities to prepare and maintain an emergency plan for emergencies that are natural or caused by man. The City's adopted EOP plans for emergencies including natural hazards. The EOP does not designate any evacuation routes within the Planning Area.

City of Fresno General Plan

Noise and Safety Element

Objective NS-6 Foster an efficient and coordinated response to emergencies and natural disasters.

Policy NS-6-a **County Multi-Jurisdiction Hazard Mitigation Plan.** Adopt and implement the Fresno County Multi-Jurisdiction Hazard Mitigation Plan and City of Fresno Local Hazard Mitigation Plan Annex.

Policy NS-6-b **Disaster Response Coordination.** Maintain coordination with other local, State, and federal agencies to provide coordinated disaster response.

- Policy NS-6-c** **Emergency Operations Plan.** Update the City’s EOP periodically, using a whole community approach which integrates considerations for People with access and functional needs in all aspects of planning.
- Policy NS-6-d** **Evacuation Planning.** Maintain an emergency evacuation plan in consultation with the Police and Fire Departments and other emergency service providers, which shows potential evacuation routes and a list of emergency shelters to be used in case of catastrophic emergencies.
- Policy NS-6-e** **Critical Use Facilities.** Ensure critical use facilities (e.g., City Hall, police and fire stations, schools, hospitals, public assembly facilities, transportation services) and other structures that are important to protecting health and safety in the community remain operational during an emergency.
- Site and design these facilities to minimize their exposure and susceptibility to flooding, seismic and geological effects, fire, and explosions.
 - Work with the owners and operators of critical use facilities to ensure they can provide alternate sources of electricity, water, and sewerage in the event that regular utilities are interrupted in a disaster.
- Policy NS-6-f** **Emergency Vehicle Access.** Require adequate access for emergency vehicles in all new development, including adequate widths, turning radii, hard standing areas, and vertical clearance.
- Policy NS-6-g** **Emergency Preparedness Public Awareness Programs.** Continue to conduct programs to inform the general public, including people with access and functional needs, of the City’s emergency preparedness and disaster response procedures.

Public Utilities and Services Element

- Objective PU-2** Ensure that the Fire Department’s staffing and equipment resources are sufficient to meet all fire and emergency service level objectives and are provided in an efficient and cost-effective manner.
- Policy PU-2-a** **Unify Fire Protection.** Pursue long-range transfer of fire protection service agreements with adjacent fire districts that, in concert with existing automatic aid agreements, will lead to the eventual unification of fire protection services in the greater Fresno area.
- Policy PU-2-b** **Maintain Ability.** Strive to continually maintain the Fire Department’s ability to provide staffing and equipment resources to effectively prevent and mitigate emergencies in existing and new high-rise buildings and in other high-density residential and commercial development throughout the City.

- Policy PU-2-c** **Rescue Standards.** Develop appropriate standards, as necessary, for rescue operations, including, but not limited to, confined space, high angle, swift water rescues, and the unique challenges of a high speed train corridor.
- Policy PU-2-d** **Station Siting.** Use the General Plan, community plans, Specific Plans, neighborhood plans, and Concept Plans, the City’s Geographic Information Systems (GIS) database, and a fire station location program to achieve optimum siting of future fire stations.
- Policy PU-2-e** **Service Standards.** Strive to achieve a community-wide risk management plan that include the following service level objectives 90 percent of the time:
- First Unit on Scene—First fire unit arriving with minimum of three firefighters within 5 minutes and 20 seconds from the time the unit was alerted to the emergency incident.
 - Effective Response Force—Provide sufficient number of firefighters on the scene of an emergency within 9 minutes and 20 seconds from the time of unit alert to arrival. The effective response force is measured as 15 firefighters for low-risk fire incidents and 21 firefighters for high-risk fire incidents and is the number of personnel necessary to complete specific tasks required to contain and control fire minimizing loss of life and property.
- Objective PU-3** Enhance the level of fire protection to meet the increasing demand for services from an increasing population.
- Policy PU-3-a** **Fire Prevention Inspections.** Develop strategies to enable the performance of annual fire and life safety inspection of all industrial, commercial, institutional, and multi-family residential buildings, in accordance with nationally recognized standards for the level of service necessary for a large Metropolitan Area, including a self-certification program.
- Policy PU-3-b** **Reduction Strategies.** Develop community risk reduction strategies that target high service demand areas, vulnerable populations (e.g., young children, older adults, non-English speaking residents, persons with disabilities, etc.), and high life hazard occupancies.
- Policy PU-3-d** **Review All Development Applications.** Continue Fire Department review of development applications, provide comments, and recommend conditions of approval that will ensure adequate on-site and off-site fire protection systems and features are provided.
- Policy PU-3-e** **Building Codes.** Adopt and enforce amendments to construction and fire codes, as determined appropriate, to systematically reduce the level of risk to life and property from fire, commensurate with the City’s fire suppression capabilities.

Policy PU-3-f Adequate Infrastructure. Continue to pursue the provision of adequate water supplies, hydrants, and appropriate property access to allow for adequate fire suppression throughout the City.

Policy PU-3-g Cost Recovery. Continue to evaluate appropriate codes, policies, and methods to generate fees or other sources of revenue to offset the ongoing personnel and maintenance costs of providing fire prevention and response services.

Fresno Southeast Development Area Specific Plan

The Fresno SEDA Specific Plan is framed within three significant and interrelated goals: fiscal responsibility, social equity, and environmental sustainability. The proposed Plan and policies that form its implementation framework are formulated and coordinated to meet the criteria of these overlapping goals. The proposed Specific Plan contains the following objectives and policies related to wildfire:

Open Space, Schools, and Public Facilities

Objective OS-2 Create and maintain an open space network that serves multiple purposes, including recreation, stormwater management, community farming, and environmental preservation.

Policy OS-2.3 Stormwater Management Features. Maximize the use of green stormwater management infrastructure—such as ponds, basins, swales, and other low-impact systems—within the open space system.

- Coordinate with Fresno Metropolitan Flood Control District (FMFCD) to incorporate green infrastructure within City parks and trails.

Objective OS-11 Provide the necessary levels of police and fire services in accordance with the City of Fresno General Plan.

Policy OS-11.2 Provision of Fire Services. Provide fire services in the SEDA in accordance with the policies of the City of Fresno General Plan. If deemed necessary, the City of Fresno Planning and Development Department, through coordination with public safety agencies, can make adjustments to these policies.

Policy OS-11.3 Coordination with Police and Fire Departments. The City of Fresno Planning and Development Department shall work with the Police and Fire departments as appropriate to promote safe environments throughout the SEDA and ensure that services can be provided in a manner that is sensitive and responsive to the needs of the community. Coordination may address:

- Evaluation of design features for safety and crime prevention
- Siting of police and fire substations
- Facilitation of citizen involvement processes

Objective OS-13 Provide electricity, natural gas, and telecommunications infrastructure necessary to serve development in the SEDA.

Policy OS-13.1 **Provision of Electricity and Natural Gas Infrastructure.** The City of Fresno shall work with Pacific Gas and Electric Company (PG&E) to provide the necessary electricity and gas infrastructure to serve development in the SEDA.

Policy OS-13.3 **Provision of Telecommunications Infrastructure.** The City shall work with service providers to establish the telecommunications infrastructure necessary to serve the residents and employers of the SEDA.

Greenhouse Gas Reduction and Conservation

Objective RC-1 Meet Statewide targets set for greenhouse gas emissions reductions as set forth in the City's updated GHG Reduction Plan, adopted in 2021.

Policy RC-1.6 **Municipal Facilities.** SEDA will include a range of municipal facilities from streetlights to parks and open spaces to community centers and police and fire facilities will be constructed. It is important to include greenhouse gas reductions and energy conservation at City facilities, over which the City has direct control and can allocate resources for this purpose. In addition, implementing these measures at City facilities also establishes the City as a leader in GHG reduction and conservation, which is important as it implements these measures on a citywide basis. The following are potential citywide actions that can be initiated within the SEDA as opportunity allows:

- A. Improve energy efficiency in City operations.
- B. Exceed Title 24 energy efficiency standards for new City buildings.
- C. Install renewable energy systems on City facilities.
- D. Implement City operated transportation demand management for City employees.
- E. Purchase green vehicles for City fleets.
- F. Enhance reduction, reuse and recycling efforts at City facilities.
- G. Implement water efficient landscaping in City parks and facilities.
- H. Establish a green purchasing program.

Objective RC-6 Develop sufficient wet utility infrastructure to meet the demand created by new development within the Southeast Development Area, applying cost-effective and low-impact strategies to the extent possible.

Policy RC-6.3 **Flood Control and Stormwater Management.** Evaluate and provide infrastructure to minimize community flood risk, enhance water quality, and provide locations for active recreation.

- **Sub-Area or Development Proposal Delivery:** Proposed stormwater systems shall be identified at the time of development project approval to the

satisfaction of the City of Fresno. Systems must work within the requirements established in the pending EIR-related water infrastructure planning tasks and the SEDA Infrastructure Financing Plan.

- **Stormwater runoff reductions.** The City of Fresno and the developer will identify specific reduction measures required for the development proposal to move forward.
- **Detailed engineering.** Infrastructure planning and engineering will be conducted with the proposed demand reduction factors included.

3.19.4 - Methodology

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 wildfires or whether the proposed project would be placed in a location susceptible to wildfire or post-wildfire conditions. The evaluation also includes a determination of whether changes to the physical environment caused by the proposed project would impair or interfere with emergency response plans, expose people to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire, expose people/structures to downslope flooding or landslides, or include installation or maintenance of infrastructure that may exacerbate fire risk. The following analysis is based, in part, on information provided by the General Plan, the SEDA Specific Plan, and the CAL FIRE website.

3.19.5 - Thresholds of Significance

The Lead Agency utilizes the criteria in 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.

If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, would the 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?

3.19.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the proposed project and provides mitigation measures where appropriate.

Emergency Response/Evacuation Plan Consistency

Impact WILD-1: **The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.**

Impact Analysis

A significant impact would occur if future development under the Specific Plan would impair an adopted emergency response plan or emergency evacuation plan. The proposed project does not approve, propose, or authorize development in an SRA or FHSZ. The nearest Very High FHSZ to the Plan Area is located approximately 25 miles northeast of the Plan Area near Pine Flat Lake.⁴

The Sierra Nevada foothills to the north and east of the City provide the nearest areas where large expanses of undeveloped properties occur. Because of the flat topography of the Plan Area and the distance between developed portions of the City and undeveloped areas, the primary fire hazard concern within the City consists of the potential for structure fires in developed areas.

The City's Police and Fire Departments are the lead agencies for all local emergency response efforts. In addition, the City's full-time Emergency Preparedness Officer (EPO) is responsible for ensuring that Fresno's emergency response plans are up-to-date and implemented properly. The EPO also facilitates cooperation between City departments and other local, State, and federal agencies that would be involved in emergency response operations.⁵

Development of the Plan Area would increase the development of residential, mixed use, research and development, institutional, and office land uses, creating a higher intensity of development within the Plan Area. These types of land uses are not expected to impair implementation of or physically interfere with adopted emergency response plans or emergency evacuation plans in the City.

Furthermore, the Specific Plan includes various policies that would reduce impacts in case of an emergency. Policy UF-5.1 requires implementation of the Major Circulation Plan, which would improve traffic circulation within the Plan Area in case of an emergency. Policy UF-5.6 sets criteria for vehicle travel facilities. Policy UF-5.7 sets Level of Service (LOS) standards. Policy PF-5.1, and Policy PF-5.2, and Policy PF-5.2 require the provision of adequate police and fire services in the SEDA in accordance with the policies of the General Plan and require that the Planning Department work with police and fire departments during buildout of the SEDA Specific Plan to ensure services are responsive to community needs.

⁴ California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fire Hazard Severity Zones in SRA. Website: https://osfm.fire.ca.gov/media/6671/fhszs_map10.pdf. Accessed June 9, 2022.

⁵ City of Fresno. Mayor's Office. Emergency Preparedness. Website: <https://www.fresno.gov/mayor/emergency-preparedness/>. Accessed May 19, 2022.

In the event of an evacuation, major freeways including State Route (SR) 180, SR-168, or SR-99 can be used. Major roadway access corridors such as Temperance, Clovis, and Jensen Avenues can also be used for emergency access. Each of these major roadway access corridors accommodates four lanes of traffic with a central turning lane.

At the programmatic level, impacts to the Plan Area would be reduced to a less than significant level. Consistent with the General Plan and Specific Plan policies, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific or project-specific measures to reduce any potential impacts and would ensure that impacts remain less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Expose Project Occupants to Pollutant Concentrations from Wildfire

Impact WILD-2:	The proposed project would not 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.
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Impact Analysis

A significant impact would occur if future development under the Specific Plan would exacerbate wildfire risk, exposing project occupants to pollutants. The proposed project does not approve, propose, or authorize development in an SRA or FHSZ. The nearest Very High FHSZ to the Plan Area is located approximately 25 miles northeast of the Plan Area.⁶ Additionally, SR-168 separates this area from the Plan Area, serving as a fire break.

The proposed project would primarily facilitate infill development, creating a higher intensity of development within the Plan Area. The Sierra Nevada foothills to the north and east of the City provide the nearest areas where large expanses of undeveloped properties occur. Because of the flat topography of the Plan Area and the distance between developed portions of the City and undeveloped areas, the primary fire hazard concern within the City consists of the potential for structure fires in developed areas.

According to the General Plan Noise and Safety Element, the City's high temperatures and sunlight during summer months combined with low rainfall could create an environment prone to wildfires by drying and pre-heating combustible material, which would encourage the spontaneous combustion of such material. The City's estimated maximum wind speed is 70 miles per hour (mph),

⁶ California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fire Hazard Severity Zones in SRA. Website: https://osfm.fire.ca.gov/media/6671/fhszs_map10.pdf. Accessed June 9, 2022.

which could exacerbate wildfire risks.⁷ The Specific Plan would result in more urbanization and paved areas, which would reduce the threat of wildfires in the area.

Development under the proposed project would be consistent with the County and City plans and policies in place to reduce the risks associated with wildland fires. For example, General Plan Policy NS-6-f requires adequate access for emergency vehicles in all new development, including adequate widths, turning radii, hard standing areas, and vertical clearance. General Plan Policy PU-2-c requires the development of appropriate standards, as necessary, for rescue operations. General Plan Policy PU-2-d requires the use of Specific Plans and a fire station location program to achieve optimum siting of future fire stations. General Plan Policy PU-2-e requires that the community-wide risk management plan includes service level objectives for 90 percent of the time. General Plan Policy PU-3-3 requires that the Fire Department review all development applications, provide comments, and recommend conditions of approval that ensure adequate on-site and off-site fire protection systems and features are provided.

Specific Plan Policy OS-13.1 and OS-13.3 include the provision of electricity, natural gas, and telecommunications infrastructure, which may increase fire risks in the area. However, the General Plan policies listed above in addition to compliance with the CBC would reduce these potential impacts to a less than significant level.

Because the Plan Area is relatively flat and is not located adjacent to or near a Very High FHSZ, the potential for wildland fire hazard would not substantially change with adoption of the proposed project, and current hazards would not be exacerbated or significantly increased. Additionally, consistent with the General Plan and Specific Plan policies, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific or project-specific measures to reduce any potential impacts and would ensure that impacts remain less than significant. Therefore, impacts under this topic would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

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.
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Impact Analysis

A significant impact would occur if future development under the Specific Plan would occur if the installation or maintenance of project infrastructure would exacerbate fire risk. The proposed project

⁷ City of Fresno. 2020. Fresno General Plan Environmental Impact Report.

does not approve, propose, or authorize development in an SRA or FHSZ. The nearest Very High FHSZ to the Plan Area is located approximately 25 miles northeast of the Plan Area near Pine Flat Lake.⁸ Additionally, SR-168 separates this area from the Plan Area, serving as a fire break.

As previously stated, the proposed project would primarily facilitate infill development, creating a higher intensity of development within the Plan Area. The Sierra Nevada foothills to the north and east of the City provide the nearest areas where large expanses of undeveloped properties occur. Because of the flat topography and the distance between developed portions of the City and undeveloped areas, the primary fire hazard concern within the City consists of the potential for structure fires in developed areas.

As described above, Specific Plan Policy OS-13.1 and OS-13.3 include the provision of electricity, natural gas, and telecommunications infrastructure, which may increase fire risks in the area. Additionally, as discussed in WILD-2, General Plan policies (such as General Plan Policy PU-3-3) as well as compliance with the CBC would ensure that fire risks are not exacerbated, and impacts would remain less than significant. Additionally, consistent with the General Plan and Specific Plan policies, individual development projects would be required to undergo project-specific environmental review, which may require additional site-specific or project-specific measures to reduce any potential impacts and would ensure that impacts remain less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

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.
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Impact Analysis

A significant impact would occur if future development under the Specific Plan would expose people or structures to significant risks related to flooding, landslides, instability, and drainage changes. The proposed project does not approve, propose, or authorize development in an SRA or FHSZ. The nearest Very High FHSZ to the Plan Area is located approximately 25 miles northeast of the Plan Area near Pine Flat Lake.⁹ Additionally, SR-168 separates this area from the Plan Area, serving as a fire break.

According to the Flood Insurance Rate Maps (FIRMs) that include SEDA, a majority of the SEDA Specific Plan Area is outside the 100-year flood zones; most areas are located within Zone X

⁸ California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fire Hazard Severity Zones in SRA. Website: https://osfm.fire.ca.gov/media/6671/fhszs_map10.pdf. Accessed June 9, 2022.

⁹ California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fire Hazard Severity Zones in SRA. Website: https://osfm.fire.ca.gov/media/6671/fhszs_map10.pdf. Accessed June 9, 2022.

(unshaded) (outside the 500-year floodplain with minimal risk of flooding) (see Exhibit 3.10-1 included in Chapter 3.10, Hydrology and Water Quality). However, several areas in the northern portion of SEDA (north of SR-180) are within zones of higher flood risk, including Zones X (shaded) (between the 100-year and 500-year floodplain with moderate risk of flooding), Zone A (Special Flood Hazard Area [SFHA] within the 100-year floodplain with high risk of flooding, but base flood elevations have not been determined), Zone AE (SFHA within the 100-year floodplain with high risk of flooding, and with determined base flood elevations), and Zone A/AE Regulatory Floodplains (SFHA with high risk of flooding, the channel of a waterway and adjacent area which must be reserved to discharge base flood without increasing surface water elevation); these areas are mainly adjacent to existing rivers, creeks, canals, or detention basins.

As discussed in Chapter 3.10, Hydrology and Water Quality, the City participates in the National Flood Insurance Program (NFIP) which adopts FIRMs, appoints a trained Floodplain Administrator, adopts a floodplain ordinance modeled after the Flood Insurance Program model ordinance, and enforces the ordinance and the requirements of Title 40 of the Code of Federal Regulations (40 Code of Federal Regulations [CFR] Protection of Environment), Subchapter D (Water Programs, Parts 100–149). The City enforces these requirements through Chapter 11, Article 6 of the Fresno Municipal Code (Fresno Flood Plain Ordinance), which outlines specific requirements for floodproofing of structures. The proposed Specific Plan includes developments that would be located within these SFHAs; development within these areas would require substantial floodproofing, and any required review and approval of the developments by the City, FMFCD, FEMA, and any other governing body. If developments follow the floodplain ordinance and General Plan objectives and policies are implemented, impacts associated with flooding of developments within the 100-year floodplain would be less than significant.

As previously stated, the proposed project would primarily facilitate infill development, creating a higher intensity of development within the Plan Area. The Sierra Nevada foothills to the north and east of the City provide the nearest areas where large expanses of undeveloped properties occur. Because of the flat topography and the distance between the developed portions of the City and undeveloped areas, the primary fire hazard concern within the City consists of the potential for structure fires in developed areas.

Additionally, as described above, Specific Plan Policy OS-13.1 and OS-13.3 include the provision of electricity, natural gas, and telecommunications infrastructure, which may increase fire risks in the area. However, as discussed in WILD-2, General Plan policies as well as compliance with the CBC would ensure that fire risks are not exacerbated, and impacts would remain less than significant.

The Plan Area is relatively flat and does not contain any FHSZs or contemplate any land use changes in areas adjacent to FHSZs and, therefore, the risk of the proposed project exacerbating post-fire slope instability and drainage changes resulting in landslides or flooding is low. However, any new development facilitated by the proposed project would be subject to General Plan Update policies and actions as well as other local regulations that reduce flood and landslide risks. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

3.19.7 - Cumulative Impacts

The geographic scope of the cumulative impact analysis for wildfire impacts is the Plan Area, the City of Fresno, and the portions of Fresno County located outside the Plan Area that could contribute to wildfire risks.

The proposed project would convert primarily agricultural land to residential and mixed-use land uses, creating a higher intensity of development within the Plan Area. The Sierra Nevada foothills to the north and east of the City provide the nearest areas where large expanses of undeveloped properties occur. Because of the topography and the distance between the developed portions of the City and undeveloped areas, the primary fire hazard concern within the City consists of the potential for structure fires in developed areas.

According to the General Plan Noise and Safety Element, the City's high temperatures and sunlight during summer months combined with low rainfall could create an environment prone to wildfires by drying and pre-heating combustible material, which would encourage the spontaneous combustion of such material. The City's estimated maximum wind speed is 70 mph, which could exacerbate wildfire risks. The SEDA Specific Plan would result in more urbanization and paved areas, which would reduce the threat of wildfires in the area.

Development of the Plan Area would increase the development of residential, mixed use, research and development, institutional, and office land uses. These types of land uses are not expected to impair implementation of or physically interfere with adopted emergency response plans or emergency evacuation plans in the City.

In the event of an evacuation, major freeways, including SR-180, SR-168, or SR-99 could be used. Major roadway access corridors such as Temperance, Clovis and Jensen, Avenues could also be used for emergency access. Each of these major roadway access corridors accommodates four lanes of traffic with a central turning lane.

According to CAL FIRE's Fire and Resource Assessment Program, the Plan Area does not contain any lands within the SRA or lands classified as Very High FHSZ within the LRA. The County of Fresno SRA lands closest to the Plan Area that are classified as Very High FHSZ are located approximately 25 miles to the northeast near Pine Flat Lake.

Since the Plan Area and surrounding areas do not contain any lands classified as Very High FHSZ, and because no potentially significant impacts related to wildfires have been identified, cumulative impacts would be less than significant. Further, as discussed in Impact Discussion WILD-1 through WILD-4, the continued implementation of the above objectives and policies from the approved General Plan would ensure potential impacts from wildfire remain less than significant. Accordingly,

implementation of the proposed project would not have a cumulatively considerable contribution to the less than significant impact. No mitigation would be required.

Level of Cumulative Significance Before Mitigation

Less than significant impact.

Cumulative Mitigation Measures

None required.

CHAPTER 4: OTHER CEQA CONSIDERATIONS

California Environmental Quality Act (CEQA) Guidelines Section 15126 requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the Recirculated Draft Program Environmental Impact Report (Recirculated Draft PEIR) must also identify (1) significant environmental effects of the proposed project; (2) significant environmental effects which cannot be avoided if the proposed project is implemented; (3) significant irreversible environmental changes which would be involved in the proposed project should it be implemented; (4) growth-inducing impact of the proposed project; (5) mitigation measures proposed to minimize the significant effects; and (6) alternatives to the proposed project.

This chapter provides a discussion of other CEQA-mandated topics including significant unavoidable impacts, growth inducement, and significant irreversible environmental changes which would be involved in the proposed project should it be implemented. Chapter 5, Alternatives to the Proposed Project, discusses alternatives to the proposed project.

4.1 - Significant Unavoidable Impacts

CEQA Guidelines Section 15126.2(a)(c) requires an Environmental Impact Report (EIR) to identify and focus on the significant environmental effects of the proposed project, including effects that cannot be avoided if the proposed project were implemented.

This section describes significant impacts, including those that can be mitigated but not reduced to a level of less than significant. Where there are impacts that cannot be alleviated without imposing a project alternative, their implications, and the reason why the project is being proposed, notwithstanding their effect, is described. With implementation of the proposed project, several significant impacts that cannot be avoided would occur. Each significant unavoidable impact is discussed below.

Impact AES-3 (Project-level Visual Character)

The proposed project would, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). Buildout of the Southeast Development Area (SEDA) Specific Plan would alter the existing visual character by increasing the intensity of development in many areas that are primarily agriculture. No feasible mitigation measures are available to mitigate the impact to a less than significant level.

Impact AES-4 (Project-level Light and Glare)

The proposed project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Intensified development in the Plan Area could increase the amount of light from streetlights, exterior lighting from buildings, and vehicle headlights. The increase in lighting within the Plan Area could result in light spillover onto adjacent areas and could

substantially illuminate the sky during nighttime. This increase in illumination is considered a significant impact. Implementation of Mitigation Measure (MM) AES-4a through MM AES-4e would reduce potential glare impacts resulting from the proposed project by requiring shields, low-intensity fixtures, requirements for signs, and non-reflective materials. However, impacts would remain significant and unavoidable.

Cumulative Aesthetics, Lights, and Glare Impacts

Implementation of the proposed project would intensify development of structures, which would create new sources of light and glare within the Plan Area and adjacent to the Plan Area. These new sources of glare could result from materials used on building façades, parking lots, signs, roadway surfaces, and motor vehicles. This increase in glare could result in cumulatively considerable significant glare impacts and illumination of the nighttime sky. Implementation of MM AES-4a through MM AES-4e would reduce potential glare impacts resulting from the proposed project. However, impacts would remain significant and unavoidable.

Impact AG-1 (Project-level Conversion of Farmland to Nonagricultural Uses)

There are approximately 2,475 acres of land designated as Prime Farmland, approximately 1,352 acres of Farmland of Statewide Importance, approximately 1,189 acres of land designated as Farmland of Local Importance, and approximately 1,725 acres of land designated as Unique Farmland scattered throughout the Plan Area. Through its open space framework and land use objectives and policies, the Specific Plan would allow flexibility in the location, form, and function of diverse agricultural types within communities and would establish a buffer between the urban area of the City of Fresno and the surrounding agricultural land. The proposed project would implement MM AG-1, which requires future developments within the Plan Area to evaluate and mitigate the potential loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland by utilizing the Land Evaluation and Site Assessment (LESA) Model and 1:1 conservation easements, or other recorded instruments to mitigate the loss of farmland. If the City adopts a Farmland Preservation Program pursuant to Fresno General Plan Policy RC-9-c, MM AG-1 states that project proponents may compensate for the loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland by complying with the adopted Farmland Preservation Program. However, while implementation of MM AG-1 would reduce the degree of potential impacts associated with future development under the Specific Plan, the conversion of Farmland to nonagricultural uses would still occur. Therefore, this impact would be significant and unavoidable even with implementation of available mitigation.

Impact AG-2 (Project-level Conflict with Existing Zoning or Williamson Act Contract)

According to the General Plan, the City and its Sphere of Influence (SOI) includes lands under Williamson Act Contract for prime and non-prime agricultural land. According to the Williamson Act property map, the majority of Williamson Act properties within the City and SOI are located within the Plan Area. Therefore, the continued implementation of the approved General Plan and the proposed Specific Plan could conflict with existing Williamson Act Contracts because non-agricultural uses are allowed on the land under a Williamson Act Contract. As a result, the continued implementation of the General Plan and proposed Specific Plan could result in a significant impact

on existing Williamson Act Contract land. While the policies included in the Specific Plan would directly limit farmland conversion and thereby help to preserve agriculture in the Plan Area and implementation of MM AG-1 would reduce impacts related to the conversion of Farmland to nonagricultural use, buildout of the proposed project would still result in the conversion of Williamson Act land to nonagricultural uses. Therefore, this impact would be significant and unavoidable without any available mitigation to reduce it to less than significant.

Cumulative Agricultural Resources and Forestry Resources Impacts

Although the proposed project would promote small farms, community gardens, and farmer's markets, future development in areas outside of the Plan Area, in combination of the loss of Prime Farmland within the Plan Area, would result in the conversion of farmland to nonagricultural uses despite the implementation of MM AG-1. Therefore, the implementation of the proposed project would result in a significant and unavoidable impact on agricultural zoning and Williamson Act Contracts. The proposed project includes land use changes that would result in the conversion of farmland to nonagricultural uses, and no feasible mitigation measures are available. Therefore, this impact would be significant and unavoidable.

Impact AIR-1 (Project-level Consistency with Air Quality Management Plan)

The proposed project has the potential to exceed the San Joaquin Valley Air Pollution Control District (Valley Air District) significance thresholds during construction and operation. Implementation of the proposed project would result in the generation of substantial long-term criteria air pollutant emissions that would exceed the Valley Air District regional significance thresholds and would therefore not be considered consistent with the existing Air Quality Plans (AQPs). MM AIR-1a through MM AIR-1d would serve to reduce emissions and exposures, however not to levels below the significance thresholds. No further measures are available beyond the applicable Valley Air District rules and regulations in addition to the proposed project's policies and design guidelines. The various goals and policies of the proposed project would contribute to reducing long-term criteria air pollutant emissions to the extent feasible. However, due to the magnitude and intensity of development accommodated by the proposed project, it would have a significant and unavoidable impact.

Impact AIR-2 (Project-level Cumulative Criteria Pollutant Emissions)

Compliance with existing regulatory programs, General Plan policies, and MM AIR-1a through MM AIR-1d would serve to reduce the impacts of the proposed project to the extent feasible. While adherence to Rule 9510 would contribute to reducing exhaust nitrogen oxide (NO_x) emissions, it would not be applicable to reducing volatile organic compound (VOC) emissions generated by operation of equipment and from off-gassing from asphalt and paints. Additionally, there is potential for multiple projects to be constructed at one time in the Plan Area, resulting in the generation of cumulatively significant amounts of NO_x emissions. Regional emissions generated by the proposed project would exceed applicable thresholds for cumulative criteria pollutant emissions after compliance with all rules, regulations, and mitigation measures during operation. While compliance with the Valley Air District rules and the policies of the proposed Specific Plan may contribute to reducing operation-related regional air quality impacts of individual projects envisioned under the

proposed Specific Plan to less than significant levels, the projected cumulative emissions associated with future development projects would be in exceedance of the Valley Air District thresholds. Therefore, implementation of the proposed project would result in a significant impact because it would significantly contribute to the nonattainment designations of the San Joaquin Valley Air Basin (SJVAB). This impact would be significant and unavoidable.

Impact AIR-3 (Project-level Sensitive Receptors Exposure to Pollutant Concentrations)

Compliance with existing regulatory programs, General Plan policies, and MM AIR-1a through MM AIR-1d would serve to reduce the impacts of the proposed project to the extent feasible. However, the proposed project would result in the future development of numerous projects, each contributing incrementally to air emissions affecting sensitive receptors. Thus, it is possible that the proposed project would result in cumulatively significant impacts to sensitive receptors, even if individual projects were each less than significant. This is particularly likely since none of the measures herein would prevent multiple development projects from being constructed concurrently within close proximity to sensitive receptors in such a manner as to cause substantial concentrations within the area. Further, neither the amount of construction occurring nor the exact location within the Plan Area is foreseeable and, as such, it cannot be determined whether the resultant construction emissions could be adequately controlled or reduced to below regulatory thresholds. Without such information, it is not possible to conclude that air pollutant emissions resulting from construction activities would be adequately reduced to the point that sensitive receptors are not exposed to substantial concentrations of air pollutants, and thus a significant and unavoidable impact may result.

Cumulative Air Quality Impacts

While implementation of MM AIR-1a through MM AIR-1d would serve to reduce criteria air pollutant and toxic air contaminants (TAC) emissions generated by the proposed project, there is currently not enough information to quantify emissions of specific project development that may occur under the proposed project. Without quantification to guarantee a less than significant finding, future development projects may still exceed the Valley Air District regional significance thresholds. Additionally, due to the size of the proposed project, there is not sufficient mitigation available to reduce the potential criteria pollutant emissions associated with the proposed project to levels that would not exceed the Valley Air District thresholds of significance. Therefore, cumulative impacts to air quality would be considered to remain significant and unavoidable.

Impact NOI-1 (Project-level Construction Noise)

Short-term construction noise impacts associated with the project are an increase in traffic flow on local streets associated with the transport of workers, equipment, and materials to and from the project site and noise generated during site-preparation, grading, and construction activities. With implementation of MM NOI-1a and MM NOI-1b, construction noise impacts due to construction activities would be reduced to the extent feasible. However, given that details of individual development projects in the vicinity of the Plan Area are currently unknown, it is not possible to quantify the construction noise impacts at specific off-site or on-site sensitive receptors. Because

these construction activities may occur near noise-sensitive receptors and because noise disturbances may occur for prolonged periods of time, construction noise impacts would remain significant and unavoidable.

Cumulative Construction Noise

Given that details of individual development projects adjacent to the Plan Area are currently unknown, it is not possible to quantify future cumulative construction noise impacts that could occur if multiple developments were to be constructed simultaneously, which could constitute a cumulative noise impact. Because construction activities associated with implementation of the Specific Plan could then also occur simultaneously and because noise disturbances could occur for prolonged periods of time, there is the possibility for a cumulative construction noise impacts that would remain significant and unavoidable.

4.2 - Growth-inducing Impacts

There are two types of growth-inducing impacts that a project may have: direct and indirect. To assess the potential for growth-inducing impacts, the project's characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated (CEQA Guidelines § 15126.2(e)). CEQA Guidelines, as interpreted by the City, state that a significant growth-inducing impact may result if the project would:

- Induce substantial population growth in an area (for example, by proposing new homes and commercial or industrial businesses beyond the land use density/intensity envisioned in the general plan);
- Substantially alter the planned location, distribution, density, or growth rate of the population of an area; or
- Include extensions of roads or other infrastructure not assumed in the general plan or adopted capital improvements project list, when such infrastructure exceeds the needs of the project and could accommodate future developments.

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community by directly inducing unplanned population growth, or by leading to the construction of additional developments in the same area. 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. Projects that physically remove obstacles to growth, or projects that indirectly induce growth may provide a catalyst for future unrelated development in an area such as a new residential community that requires additional commercial uses to support residents.

As discussed in Chapter 2, Project Description, buildout of the proposed project could generate up to approximately 45,000 homes and 37,000 jobs as well as 1,820 acres of employment-generating land uses such as office, research and development, and institutional uses by the year 2050. Based on the

average household size in the City of 2.99 persons per household, this anticipated future development could accommodate up to 134,550 residents. The population potential for the Plan Area is within the population growth anticipated by the General Plan, which anticipates growth of up to 226,000 additional residents by 2035, consistent with the proposed project. Accordingly, implementation of the proposed project would not exceed the City's anticipated population growth.

The population projections described above are consistent with the population projections and methodology found within the City's General Plan and utilize the best data available at the time this analysis was prepared. This approach is consistent with requirements to maintain consistency with the General Plan. By evaluating the proposed project within the context of the General Plan, the City is able to comprehensively assess future demand for resources such as water and energy as well as public services, such as police, fire, and education. Utilizing projections for the proposed project that are consistent with the General Plan allows for the development of Specific Plan Policies and Programs that are reflective of the City's planned for and approved growth identified in the General Plan.

According to the General Plan, the City projects that the total additional residential development capacity by the General Plan's horizon in 2035 would be approximately 76,000 additional dwelling units and by the General Plan's buildout in 2050 would be approximately 145,000 additional dwelling units between both the infill and growth areas.¹ These values constitute the planned growth anticipated by the City for residential units within its SOI. As the proposed project would generate approximately 45,000 new dwelling units by 2050, approximately 31 percent of the total planned capacity for the City, full buildout of the proposed project would be considered planned growth providing housing to meet the demand for new residential units and would not be considered growth inducing.

4.3 - Mandatory Findings of Significance

Public Resources Code Section 21083 requires lead agencies to make a finding of a "significant effect on the environment" if one or more of the following conditions exist:

- 1) A proposed project has the potential to degrade the quality of environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife species to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare, or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.
- 2) The possible effects of a project are individually limited but cumulatively considerable.
- 3) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.

¹ City of Fresno. 2014. General Plan, Table 1-2, Residential Development Capacity Under Horizon and Buildout, and Table 1-3, Residential Development Capacity Under General Plan Horizon. Website: https://cityoffresno.wpenginepowered.com/darm/wp-content/uploads/sites/10/2022/12/upload_temp_Consolidated-GP-10-13-2022.pdf. Accessed January 20, 2023.

Finding No. 1: Less than significant impact with mitigation incorporated.

Based on the analysis provided in Section 3.4, Biological Resources, the proposed project's impacts related to special-status species and special-status natural communities and habitat would be less than significant with mitigation incorporated. Additionally, the proposed project's impacts on riparian habitat, a special-status species associated with riparian or wetlands habitats, as well as federally protected wetlands, and wildlife corridors would be less than significant with mitigation incorporated. Therefore, implementation of MM BIO-1a through MM BIO-1d would reduce impacts on special-status species. Implementation of MM BIO-2a through MM BIO-2c would reduce impacts to sensitive natural communities or riparian habitats. Implementation of MM BIO-3a and MM BIO-3b would reduce impacts to wetlands and jurisdictional features.

With implementation of MM BIO-1a, MM BIO-1b, MM BIO-1c, MM BIO-1d, MM BIO-2a, MM BIO-2b, MM BIO-2c, MM BIO-3a, and MM BIO-3b, the proposed project would not substantially degrade the quality of the environment, reduce fish or wildlife habitat, reduce fish or wildlife populations below self-sustaining levels, eliminate a plant or animal community, or reduce the number or range of a rare or endangered plant or animal.

Based on the analysis provided in Section 3.5, Cultural Resources and Tribal Cultural Resources, the proposed project's impacts related to California history or prehistory would be less than significant with mitigation incorporated. Implementation of MM CUL-1 and MM CUL-2 would reduce impacts to historical cultural resources or Tribal cultural resources encountered during ground-breaking activities. Implementation of MM CUL-3 would reduce impacts to human remains that could be unearthed during excavation or grading activities.

With implementation of MM CUL-1, MM CUL-2, and MM CUL-3, the proposed project would not substantially degrade the quality of the environment or eliminate important examples of the major periods of California history or prehistory.

Based on the discussion provided above, compliance with required guidelines and statutes and implementation of the mitigation measures, the project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, impacts would be less than significant with incorporation of MM BIO-1a, MM BIO-1b, MM BIO-1c, MM BIO-1d, MM BIO-2a, MM BIO-2b, MM BIO-2c, MM BIO-3a, MM BIO-3b, MM CUL-1, MM CUL-2, and MM CUL-3.

Finding No. 2: Significant and unavoidable impact.

The analysis presented in this Recirculated Draft PEIR includes a review of proposed project's potential impacts related to air quality, biological resources, cultural resources, noise, and transportation, among other environmental issue areas. As presented throughout this PEIR, the

proposed project's cumulative impacts would either be significant and unavoidable, less than significant with mitigation incorporated, less than significant, or there would be no impacts.

The proposed project is a document that provides a vision for growth and development in the SEDA over the next 20 to 30 years. This long-range planning document addresses a wide range of topics including affordable housing, jobs and economic development, transportation, parks and open space, and a healthy environment. As the proposed project is a policy-level document, it does not include any specific development proposals. The Specific Plan proposes changing land use designations for some of the Plan Area's parcels, which would require an amendment to the General Plan Land Use map.

There would be less than significant cumulative impacts with regard to biological resources, energy, geology and soils, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, and recreation.

Potentially significant cumulative impacts related to cultural and Tribal cultural resources, greenhouse gas (GHG) emissions, hydrology and water quality, transportation, and utilities would be mitigated to less than significant levels with the implementation of MM CUL-1, MM CUL-2, MM CUL-3, MM HYD-2a, MM HYD-2b, MM HYD-2c, MM HYD-2d, MM HYD-2e, MM HYD-3a, MM HYD-3b, MM HYD-3c, MM HYD-3d, MM HYD-3e, MM HYD-3f, MM HYD-3g, MM TRANS-1a, MM TRANS-1b, MM TRANS-1c, MM TRANS-1d, MM TRANS-1e, MM TRANS-31, MM TRANS-3b, MM TRANS-4, MM UTIL-1a, MM UTIL-1b, MM UTIL-1c, MM UTIL-1d, MM UTIL-1e, MM UTIL-1f, MM UTIL-2a, MM UTIL-2b, MM UTIL-2c, and MM UTIL-4.

Significant and unavoidable impacts would occur related to aesthetics, agricultural resources, air quality, GHG emissions, and noise. While implementation of MM AES-4a through MM AES-4e, MM AG-1, MM AIR-1a through MM AIR-1d, and MM AIR-4 would reduce these impacts, there is no feasible mitigation available that would fully bring these impacts to less than significant levels.

Overall, with implementation of the applicable mitigation measures, impacts associated with the proposed project would remain significant and unavoidable for aesthetics, agricultural resources, air quality, and noise. The implementation of other projects in the City would be required to demonstrate regulatory compliance and implement similar mitigation measures, as applicable. Therefore, the proposed project would have some impacts that are individually limited but cumulatively considerable.

Finding No. 3: Less than significant impact.

Compliance with and implementation of mitigation measures, existing regulations, and the City's standard permit conditions would ensure that the proposed project, and future development consistent with the proposed project, would not result in substantial adverse effects on human beings, including effects related to air pollution, seismic and geologic hazards, hazardous materials, flooding and natural disasters, or noise and vibration. Therefore, impacts associated with the proposed project would be less than significant.

CHAPTER 5: ALTERNATIVES TO THE PROPOSED PROJECT

5.1 - Introduction

In accordance with California Environmental Quality Act (CEQA) Guidelines Section 15126.6, this Recirculated Draft Program Environmental Impact Report (Recirculated Draft PEIR) contains a comparative impact assessment of alternatives to the proposed project. The primary purpose of this section is to provide decision-makers and the general public with a reasonable number of 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 § 15126.6).

- An 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.

5.1.1 - Significant Unavoidable Impacts

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

- **Impact AES-3 (Project-level Visual Character):** The proposed project would, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). Buildout of the Southeast Development Area (SEDA) Specific Plan would alter the existing visual character by increasing the intensity of development in many areas that are primarily agriculture. No feasible mitigation measures are available to mitigate the impact to a less than significant level.
- **Impact AES-4 (Project-level Light and Glare):** The proposed project would create a new source of substantial light or glare which could adversely affect day or nighttime views in the area. Intensified development in the Plan Area could increase the amount of light from streetlights, exterior lighting from buildings, and vehicle headlights. The increase in lighting within the Plan Area could result in light spillover onto adjacent areas and could substantially illuminate the sky during nighttime. This increase in illumination is considered a significant impact. Implementation of Mitigation Measure (MM) AES-4a through MM AES-4e would reduce potential glare impacts resulting from the proposed project by requiring shields, low-intensity fixtures, requirements for signs, and non-reflective materials. However, impacts would remain significant and unavoidable.

- **Cumulative Aesthetics, Lights, and Glare Impacts:** Implementation of the proposed project would increase intensify development of structures, which would create new sources of light and glare within the Plan Area and adjacent to the Plan Area. These new sources of glare could result from materials used on building façades, parking lots, signs, roadway surfaces, and motor vehicles. This increase in glare could result in cumulatively considerable significant glare impacts and illumination of the nighttime sky. Additionally, implementation of MM AES-4a through MM AES-4e would reduce potential glare impacts resulting from the proposed project. However, impacts would remain significant and unavoidable.
- **Impact AG-1 (Project-level Conversion of Farmland to Nonagricultural Uses):** There are approximately 2,475 acres of land designated as Prime Farmland, approximately 1,352 acres of Farmland of Statewide Importance, approximately 1,189 acres of land designated as Farmland of Local Importance, and approximately 1,725 acres of land designated as Unique Farmland scattered throughout the Plan Area. Through its open space framework and land use objectives and policies, the Specific Plan would allow flexibility in the location, form, and function of diverse agricultural types within communities and would establish a buffer between the urban area of the City of Fresno and the surrounding agricultural land. The proposed project would implement MM AG-1, which requires future developments within the Plan Area to evaluate and mitigate the potential loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland by utilizing the Land Evaluation and Site Assessment (LESA) Model and 1:1 conservation easements, or other recorded instruments to mitigate the loss of farmland. If the City adopts a Farmland Preservation Program pursuant to Fresno General Plan Policy RC-9-c, MM AG-1 states that project proponents may compensate for the loss of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland by complying with the adopted Farmland Preservation Program. However, while implementation of MM AG-1 would reduce the degree of potential impacts associated with future development under the Specific Plan, the conversion of Farmland to nonagricultural uses would still occur. Therefore, this impact would be significant and unavoidable even with implementation of available mitigation.
- **Impact AG-2 (Project-level Conflict with Existing Zoning or Williamson Act Contract):** According to the General Plan, the City and its Sphere of Influence (SOI) includes lands under Williamson Act Contract for prime and non-prime agricultural land. According to the Williamson Act property map, the majority of Williamson Act properties within the City and its SOI are located within the Plan Area. Therefore, the continued implementation of the approved General Plan and the proposed Specific Plan could conflict with existing Williamson Act Contracts because non-agricultural uses are allowed on the land under a Williamson Act Contract. As a result, the continued implementation of the General Plan and proposed Specific Plan could result in a significant impact on existing Williamson Act Contract land. While the policies included in the Specific Plan would directly limit farmland conversion and thereby help to preserve agriculture in the Plan Area and implementation of MM AG-1 would reduce impacts related to the conversion of Farmland to nonagricultural use, the conversion of Farmland to nonagricultural uses would still occur. Therefore, this impact would be significant and unavoidable, and no feasible mitigation measures are available to reduce it to less than significant.

- **Cumulative Agricultural Resources and Forestry Resources Impacts:** Although the proposed project would promote small farms, community gardens, and farmer's markets, future development in areas outside of the Plan Area, in combination of the loss of Prime Farmland within the Plan Area, would result in the conversion of farmland to non-agriculture uses, despite the implementation of MM AG-1. Therefore, the implementation of the proposed project would result in a significant and unavoidable impact on agricultural zoning and Williamson Act Contracts. The proposed project includes land use changes that would result in the conversion of farmland to non-agriculture uses, and no feasible mitigation measures are available. Therefore, this impact would be significant and unavoidable.
- **Impact AIR-1 (Project-level Consistency with Air Quality Management Plan):** The proposed project has the potential to exceed the San Joaquin Valley Air Pollution Control District (Valley Air District) significance thresholds during construction and operation. Implementation of the proposed project would result in the generation of substantial long-term criteria air pollutant emissions that would exceed the Valley Air District regional significance thresholds and would therefore not be considered consistent with the existing Air Quality Plans (AQPs). Mitigation measures AIR-1a through AIR-1d will serve to reduce emissions and exposures, however not to levels below the significance thresholds. While the various goals and policies of the proposed project would contribute to reducing long-term criteria air pollutant emissions to the extent feasible, no further feasible measures are available beyond the applicable Valley Air District rules and regulations and the proposed project's policies and design guidelines. Therefore, due to the magnitude and intensity of development accommodated by the proposed project, it would have a significant and unavoidable impact.
- **Impact AIR-2 (Project-level Cumulative Criteria Pollutant Emissions):** Compliance with existing regulatory programs, General Plan policies, and MM AIR-1a through MM AIR-1d would serve to reduce the impacts of the proposed project to the extent feasible. While adherence to Rule 9510 would contribute to reducing exhaust nitrogen oxide (NO_x) emissions, it would not be applicable to reducing volatile organic compound (VOC) emissions generated by operation of equipment and from off-gassing from asphalt and paints. Additionally, there is potential for multiple projects to be constructed at one time in the Plan Area, resulting in the generation of cumulatively significant amounts of NO_x emissions. Regional emissions generated by the proposed project would exceed applicable thresholds for cumulative criteria pollutant emissions after compliance with all rules, regulations, and mitigation measures during operation. While compliance with the Valley Air District rules and the policies of the proposed Specific Plan may contribute to reducing operation-related regional air quality impacts of individual projects envisioned under the proposed Specific Plan to less than significant levels, the projected cumulative emissions associated with future development projects would be in exceedance of the Valley Air District thresholds. Therefore, implementation of the proposed project would result in a significant impact because it would significantly contribute to the nonattainment designations of the San Joaquin Valley Air Basin (SJVAB). This impact would be significant and unavoidable.
- **Impact AIR-3 (Project-level Sensitive Receptors Exposure to Pollutant Concentrations):** Compliance with existing regulatory programs, General Plan policies, and MM AIR-1a through MM AIR-1d would serve to reduce the impacts of the proposed project to the extent feasible.

However, the proposed project would result in the future development of numerous projects, each contributing incrementally to air emissions affecting sensitive receptors. Thus, it is possible that the proposed project would result in cumulatively significant impacts to sensitive receptors even if individual projects were each less than significant. This is particularly likely since none of the measures herein would prevent multiple development projects from being constructed concurrently within close proximity to sensitive receptors in such a manner as to cause substantial concentrations within the area. Furthermore, neither the amount of construction occurring nor the exact location within the Plan Area is foreseeable and, as such, it cannot be determined whether the resultant construction emissions could be adequately controlled or reduced to below regulatory thresholds. Without such information, it is not possible to conclude that air pollutant emissions resulting from construction activities would be adequately reduced to the point that sensitive receptors are not exposed to substantial concentrations of air pollutants, and thus a significant and unavoidable impact may result.

- **Cumulative Air Quality Impacts:** While implementation of MM AIR-1a through MM AIR-1d would serve to reduce criteria air pollutant and toxic air contaminants (TAC) emissions generated by the proposed project, there is currently not enough information to quantify emissions of specific project development that may occur under the proposed project. Without quantification to guarantee a less than significant finding, future development projects may still exceed the Valley Air District regional significance thresholds. Additionally, due to the size of the proposed project, there is not sufficient feasible mitigation available to reduce the potential criteria pollutant emissions associated with the proposed project to levels that would not exceed the Valley Air District thresholds of significance. Therefore, cumulative impacts to air quality would remain significant and unavoidable.
- **Impact NOI-1 (Project-level Construction Noise):** Short-term construction noise impacts associated with the project are an increase in traffic flow on local streets associated with the transport of workers, equipment, and materials to and from the project site and noise generated during site-preparation, grading, and construction activities. With implementation of MM NOI-1a and MM NOI-1b, construction noise impacts due to construction activities would be reduced to the extent feasible. However, given that details of individual development projects in the vicinity of the Plan Area are currently unknown, it is not possible to quantify the construction noise impacts at specific off-site or on-site sensitive receptors. Because these construction activities may occur near noise-sensitive receptors and because noise disturbances may occur for prolonged periods of time, construction noise impacts would remain significant and unavoidable.
- **Cumulative Construction Noise:** Given that details of individual development projects adjacent to the Plan Area are currently unknown, it is not possible to quantify future cumulative construction noise impacts that could occur if multiple developments were to be constructed simultaneously, which could constitute a cumulative noise impact. Because construction activities associated with implementation of the Specific Plan could then also occur simultaneously and because noise disturbances could occur for prolonged periods of time, there is the possibility for cumulative construction noise impacts that would remain significant and unavoidable.

5.1.2 - Alternatives to the Proposed Project

The three alternatives to the proposed project analyzed in this section are as follows:

Alternative 1—No Project Alternative

Under this alternative, the Specific Plan would not be approved, and thus, the proposed Specific Plan policies would not be implemented, and no zoning or land use designation changes would occur in the Plan Area. Additionally, the areas within the Plan Area that are outside of the City's SOI would not be annexed to the City. Future development in the Plan Area would be developed in accordance with the current land use and zoning maps identified in the General Plan. The buildout of the General Plan includes approximately 17,900 homes and approximately 29,600 jobs in the Plan Area. Comparatively, the proposed Specific Plan would include approximately 45,000 homes and approximately 37,000 jobs. The existing Plan Area contains the following General Plan designations that would not change under Alternative 1: Residential-Low Density, Residential-Medium Density, Residential-Urban Neighborhood, Employment-Mixed Use, Employment-Office, Public Facilities, Open Space, and Buffer.

Alternative 2—Consolidated Business Park Alternative

Under the Consolidated Business Park Alternative, the Specific Plan would be developed as described in this Recirculated Draft PEIR, except that this alternative would maintain the existing Research and Development land designations from the General Plan for the area south of Jensen Avenue. It would accommodate approximately 42,900 homes and approximately 36,000 jobs within the 9,000-acre planning area. The area identified in the Specific Plan as Flexible Research and Development to the east of Temperance Avenue and north of Jensen Avenue would be developed as Neighborhood Residential and Mixed Residential with two community centers and five neighborhood centers. Additionally, this alternative would change the land use designations for the planned Mixed Residential and Neighborhood Residential, along with the Community and Neighborhood Centers south of Jensen Avenue. Under the Consolidated Business Park Alternative, that area would be designated as Flexible Research and Development and Offices. Please refer to Exhibit 5-1 for a visual representation of this alternative.

Alternative 3—Farmland Conservation Alternative

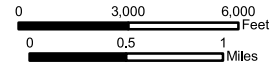
Under the Farmland Conservation Alternative, buildout of the Specific Plan would occur as proposed in this Recirculated Draft PEIR; however, under this alternative, specific parcels of farmland located within the Plan Area would be desigated for conservation. No future development would be permitted on farmland designated for conservation. Under the proposed project, buildout of the Specific Plan would include a farmland buffer along the east side of the Plan Area. Under the proposed project this area is designated as Rural Cluster Residential which allows specific residential development to be developed on the important farmlands. However, under this alternative, farmland located within the portions of the Plan Area designated as Rural Cluster Residential would be conserved, disallowing development on identified Prime, Unique, and Statewide Importance Farmland within this portion of Plan Area. It would be compatible with the uses of the surrounding land since the farmland preserved will also be rural in nature. Please refer to Exhibit 5-2 for a visual representation of this alternative.

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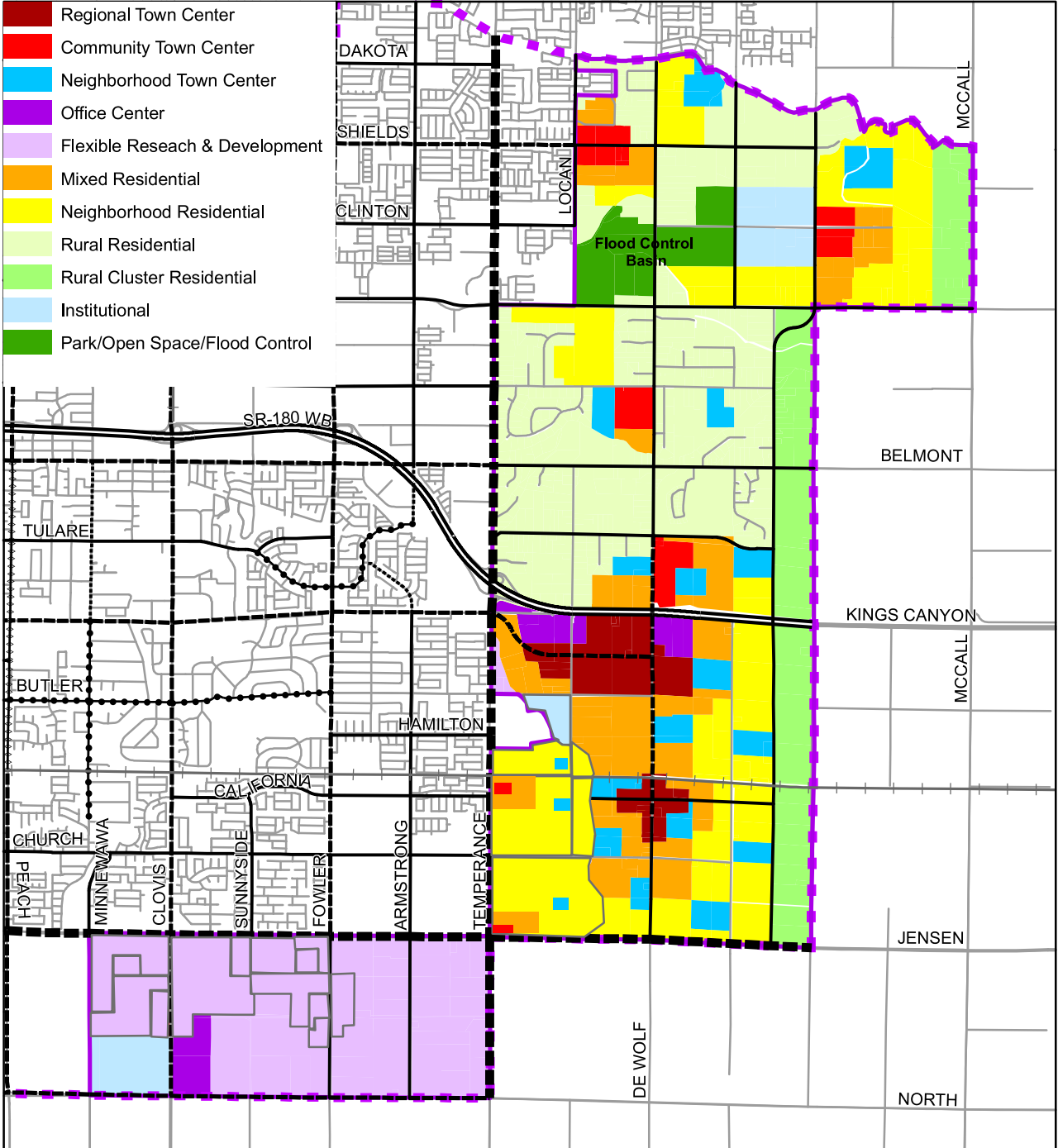
CONSOLIDATED BUSINESS PARK ALTERNATIVE

Southeast Development Area

- Freeway
- Expressway
- Scenic Expressway
- Super Arterial
- Arterial
- Scenic Arterial
- Scenic Drive
- Collector
- Scenic Collector
- Southeast Development Area
- Fresno Sphere of Influence
- Major & Local Roads
- Railroads



Source: City of Fresno, SEDA Illustrative Plan derived from community and stakeholder meetings.



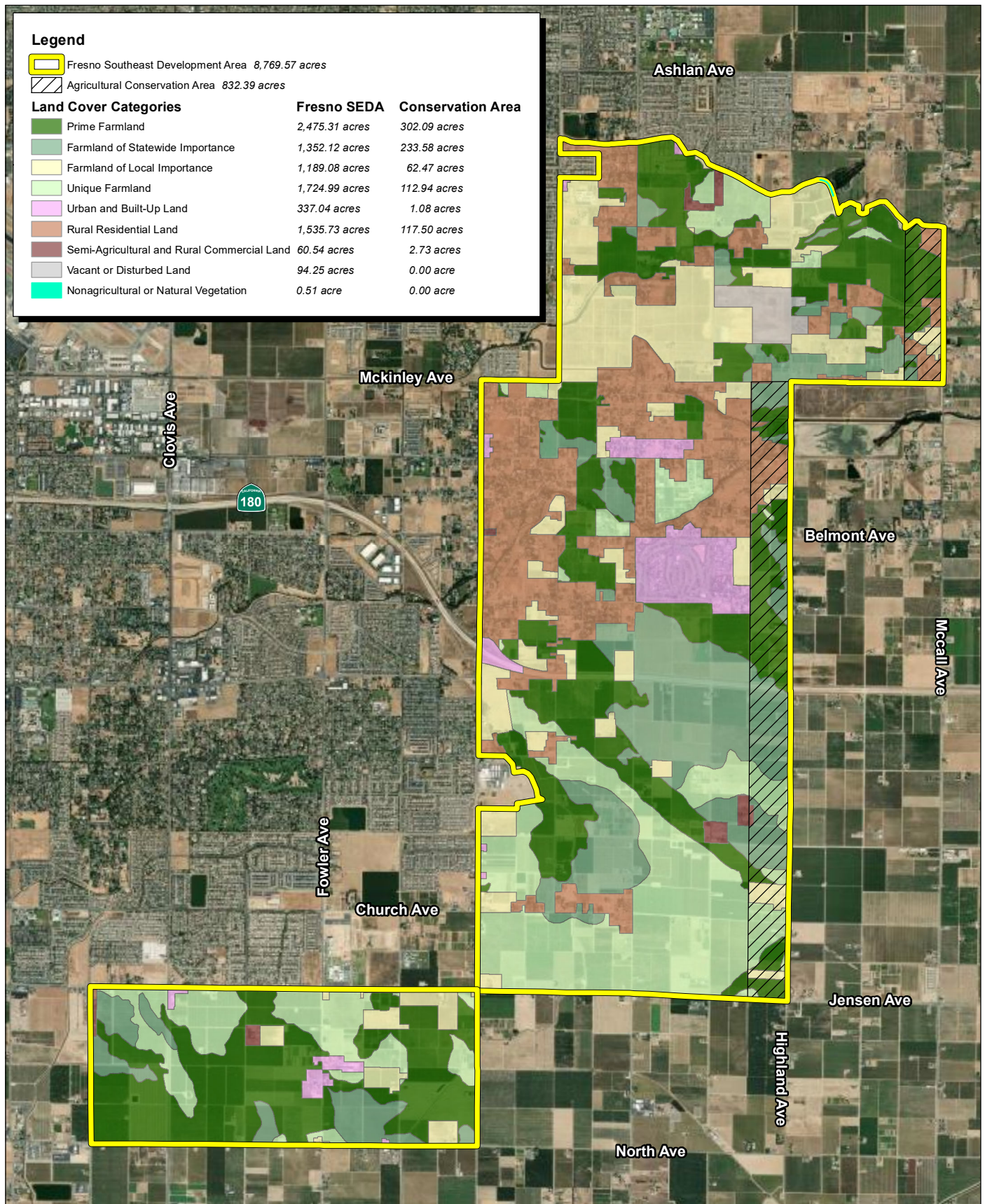
Source: City of Fresno

FIRSTCARBON
SOLUTIONS™



Exhibit 5-1 Consolidated Business Park Alternative

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Source: ESRI Aerial Imagery, CA Department of Conservation Fresno County 2018

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4,600 2,300 0 4,600
Feet

Exhibit 5-2 Farmland Conservation Alternative

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The three alternatives to the proposed project are analyzed below. These analyses compare the proposed project and each individual project alternative. In several cases, the description of the impact may be the same under each alternative when compared with the CEQA Thresholds of Significance (i.e., both the project and the alternative would result in a less than significant impact). The actual degree of impact may be slightly different between the proposed project and each alternative, and this relative difference is the basis for a conclusion of greater or lesser impacts.

5.2 - Project Objectives

As stated in Chapter 2, Project Description, the objectives of the proposed project are to:

Quantified Objectives

- Accommodate between 40,000 and 45,000 dwelling units of varying types, sizes, densities, and affordability levels.
- Accommodate between 30,000 and 37,000 jobs.

Fiscal Responsibility

- Provide self-financing for the development and ongoing maintenance of the SEDA that does not reduce City of Fresno resources dedicated to other areas of the City or burden Fresno residents outside of the SEDA.
- Holistically coordinate infrastructure to integrate efficiencies that piecemeal planning cannot.
- Invest in resource conserving techniques for stormwater systems, water supply, and trail and open space networks to save on infrastructure and mitigation costs.

Social Equity

- Promote health by reducing harmful emissions from cars and industry.
- Foster healthy physical activity and community interaction by providing easy, safe walking and bicycle access to parks, schools, and retail centers.
- Sustain the diversity of Fresno's population by providing a wide variety of housing choices and business opportunities.
- Respect the major economic and cultural role of agriculture in the Central Valley by accommodating growth within the confines of a smaller urban footprint and directly integrating community-scale agriculture into the design of community centers, neighborhoods, and open spaces.

Environmental Sustainability

- Emphasize the efficient use of energy, water, and other resources in SEDA design and policies. Strive to produce a self-mitigating plan that deeply reduces the environmental impacts of growth and can sustain and even serve to improve or repair natural systems.
- Reduce energy and water consumption through more efficient land use patterns, smarter building standards, and environmentally sensitive infrastructure to help Fresno meet standards for GHG emissions, and well as air pollution and water quality.

Housing Choice

- Offer a variety of housing choices to a mix of incomes, age groups, and lifestyles.
- Ensure new housing units are affordable to households with varying levels of income through covenants and deed-restrictions or other affordability mechanisms.

High Quality Transit Service

- Provide convenient and frequent transit service to connect SEDA's town centers to jobs and housing inside the Plan Area and across the region.

Walkable Neighborhoods

- Provide for nearly all homes to be located within walking distance of a Neighborhood Town Center with an elementary school, recreation areas, community gardens, and small shops.

Parks, Open Space, and Trails

- Create a variety of natural open spaces and parks for recreation in all areas of the SEDA.
- Create trail systems and bicycle paths that make traveling without a car safe and convenient.
- Ensure that schools and major town centers can be reached safely with or without a car.

Mixed Use Town Centers

- Mix shopping, housing, and jobs in vibrant Regional Town Centers and Community Town Centers that are easily accessible to most residents via a short walk, bike ride, drive, or transit trip.

Innovative Employment Areas

- Attract opportunities in green technology and energy systems, ag-related industries, modular housing, and other emerging fields to provide jobs for Fresno residents.

Community Farming and Agriculture

- Integrate small farms, community gardens, and farmers' markets into neighborhoods, schools, and town centers.
- Create a buffer that includes rural homes, organic farming, and open spaces to serve as a transition between the SEDA and commercial agriculture to the east.

Implementation

- Develop the SEDA in an organized and phased manner based on housing needs, infrastructure availability, and minimization of impacts.
- Ensure amenities and infrastructure provision for each new phase prior to commencement of construction.

5.3 - Alternative 1—No Project Alternative

CEQA Guidelines Section 15126.6(e) requires an EIR to evaluate a 'No Project Alternative,' which is defined as what would be reasonably expected to occur in the foreseeable future, if the project were

not approved. Under this alternative, the Specific Plan would not be approved with new policies and no zoning or land use designation changes would occur. Additionally, the General Plan would not be amended and the portions of the Plan Area that are not included within the City boundaries would not be annexed into the City. All future development in the Plan Area would be developed in accordance with the current land use and zoning maps identified in the General Plan.

The General Plan includes the development of approximately 17,900 homes and approximately 29,600 jobs in the Plan Area, while the proposed project includes approximately 45,000 homes and 37,000 jobs. The existing Plan Area contains the following General Plan designations: Residential-Low Density, Residential-Medium Density, Residential-Urban Neighborhood, Employment-Mixed Use, Employment-Office, Public Facilities, Open Space, and Buffer.

Overall, buildout under the No Project Alternative (Alternative 1) would be consistent with the General Plan, and thus, less dense and intense than under the proposed project.

5.3.1 - Impact Analysis

Aesthetics, Light, and Glare

As noted in Section 3.1, Aesthetics, Light and Glare, the proposed project's impacts to aesthetics, light, and glare would be significant and unavoidable even with implementation of mitigation because the proposed project would add sources of light and glare and would increase urbanization, changing the rural character of the community. Under Alternative 1, the proposed project would not be approved and buildout of the Plan Area would be consistent with the General Plan. Buildout under the General Plan includes approximately 17,900 homes and approximately 29,600 jobs in the Plan Area. Comparatively, the proposed Specific Plan would include approximately 45,000 homes and approximately 37,000 jobs. Because the Specific Plan proposes a greater intensity of development, it would have greater impacts than Alternative 1. Under Alternative 1, there would be a significant and unavoidable impact related to visual character as well as light and glare because development would lead to increased development, impacting the existing rural character of the area and increasing sources of light and glare. However, because more existing open space would be retained under the General Plan, Alternative 1 would have similar, but reduced, impacts as compared to the proposed project.

Agricultural Resources and Forestry Resources

As noted in Section 3.2, Agricultural Resources and Forestry Resources, the proposed project's impacts to agricultural resources and forestry resources would be significant and unavoidable even with the implementation of mitigation. The proposed project includes the conversion of farmland to residential uses, community centers, flexible research and development, and neighborhood centers. Under Alternative 1, the proposed project would not be approved and buildout of the Plan Area would be consistent with the General Plan. Buildout under the General Plan includes approximately 17,900 homes and approximately 29,600 jobs in the Plan Area. Comparatively, the proposed Specific Plan would include approximately 45,000 homes and approximately 37,000 jobs. Because the Specific Plan proposes a greater intensity of development, it would have greater impacts than Alternative 1. Under Alternative 1, there would be a significant and unavoidable impact related to

the conversion of farmland to nonagricultural use as well as conflicts with existing zoning for agricultural use or a Williamson Act Contract because agricultural land and farmland, including land under an existing Williamson Act Contract, would be converted to nonagricultural uses despite implementation of all feasible mitigation. Therefore, while Alternative 1 would have a lesser effect on farmland, it would still be significant and unavoidable.

Air Quality

As noted in Section 3.3, Air Quality, the proposed project's impacts to air quality would be significant and unavoidable even with the implementation of mitigation. As described above, Alternative 1 would result in less intense development compared to the proposed project. With buildout envisioned by the General Plan, there would be significant and unavoidable air quality impacts related to cumulatively considerable increases in criteria pollutants, as well as exposure of sensitive receptors to substantial pollutant concentrations, because the General Plan would result in increased development, which would increase criteria pollutants and pollutant concentrations in the Plan Area. Therefore, while it would result in less air quality effects than the proposed project, impacts resulting from Alternative 1 would remain significant and unavoidable.

Biological Resources

As noted in Section 3.4, Biological Resources, the proposed project's impacts related to biological resources would be less than significant with the incorporation of mitigation, along with applicable regulations. As described above, buildout of the General Plan under Alternative 1 would be less intense than under the proposed project. There would be less than significant impacts related to biological resources because all future development under the General Plan would be required to implement feasible mitigation measures and comply with applicable regulations regarding biological resources. Potential disturbance to biological resources would be similar to the proposed project but less impactful because of the decreased intensity in Alternative 1. The development under Alternative 1 would require the implementation of feasible mitigation measures that would reduce impacts to biological resources but would not have the benefit of enhancements identified in the proposed project. Impacts would be expected to be less than significant, similar to the proposed project.

Cultural Resources and Tribal Cultural Resources

As noted in Section 3.5, Cultural Resources and Tribal Cultural Resources, the proposed project's impacts related to cultural resources and tribal cultural resources would be less than significant with the implementation of applicable policies and regulations, as well as mitigation. Buildout under Alternative 1 would be less intense than under the proposed project and therefore is likely to have a smaller effect on cultural resources. However, similar to the proposed project, impacts would be less than significant with mitigation incorporated.

Energy

As noted in Section 3.6, Energy, the proposed project's impacts related to energy would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary. Buildout under Alternative 1 would have less intensity than the proposed project.

Therefore, Alternative 1 would require a lower energy consumption than the proposed project. Additionally, since all past, present, and future development projects would be required to comply with the Municipal Code, City ordinances, and County policies that address energy conservation and efficiency during construction, impacts would be less than significant, similar to the proposed project. Impacts would remain less than significant, similar to the proposed project, although slightly less intense due to the reduction in development intensity.

Geology, Soils, and Seismicity

As noted in Section 3.7, Geology, Soils, and Seismicity, the proposed project's impacts related to geology, soils, and seismicity would be less than significant with the incorporation of mitigation, along with applicable regulations. Buildout of the General Plan under Alternative 1 would be less intense than under the proposed project. Therefore, less soil would be disturbed. Development under Alternative 1 would require the implementation of feasible mitigation measures as well as compliance with applicable regulations regarding geology, soils, and seismicity. Impacts would be expected to be less than significant, similar to the proposed project.

Greenhouse Gas Emissions

As noted in Section 3.8, Greenhouse Gas Emissions, the proposed project's impacts related to greenhouse gas (GHG) emissions would be less than significant with the incorporation of mitigation and compliance with all applicable regulations regarding GHG emissions. Alternative 1 would result in less intense development than the proposed project. Under Alternative 1, GHG impacts would be less than significant with mitigation incorporated because future development projects would be required to implement feasible mitigation measures, as well as comply with applicable regulations regarding GHG emissions. Therefore, Alternative 1 would have a similar to, but slightly reduced, impact compared to the proposed project with regard to GHG emissions.

Hazards and Hazardous Materials

As noted in Section 3.9, Hazards and Hazardous Materials, the proposed project's impacts related to hazards and hazardous materials would be less than significant with all mitigation incorporated, along with the implementation of applicable regulations. Buildout of the existing General Plan under Alternative 1 would be less intense than under the proposed project. Notably, because they are policy level documents and do not approve any specific development activities, neither Alternative 1 nor the proposed project would result in physical changes, resulting in a significant environmental effect. Additionally, construction of future individual development projects consistent with the existing General Plan must comply with the California Code of Regulations and implement a Stormwater Pollution Prevention Plan to prevent hazardous material spills and protect public safety. Therefore, while Alternative 1 would have a smaller effect on hazards and hazardous materials due to the smaller intensity of development, impacts would be less than significant, similar to the proposed project.

Hydrology and Water Quality

As noted in Section 3.10, Hydrology and Water Quality, the proposed project's impacts related to hydrology and water quality would be less than significant with the incorporation of all applicable

mitigation measures and regulations. As described above, buildout of the General Plan under Alternative 1 would be less intense than under the proposed project. Accordingly, potential disturbance to hydrology would be similar, but slightly less, because more open space would be retained. Therefore, the number of impervious surfaces created would be reduced. Impacts would be less than significant but further reduced compared to the proposed project.

Land Use and Planning

As noted in Section 3.11, Land Use and Planning, the proposed project's impacts related to land use and planning would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary. Buildout of the General Plan would have a less than significant impact with respect to land use because the approved General Plan includes objectives and policies to reduce land use conflicts and provide for future orderly development to reduce the potential to divide established communities or conflict with a land use plan, policy, or regulation. Therefore, impacts resulting from Alternative 1 would be less than significant, similar to the proposed project.

Mineral Resources

As noted in Section 3.12, Mineral Resources, the proposed project's impacts related to mineral resources would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

There are mineral resources within the City, but only in the San Joaquin River Corridor, which is not part of the Plan Area as described in Section 3.12, Mineral Resources. Therefore, Alternative 1 would have the same impact as the proposed project. A less than significant impact would occur.

Noise

As noted in Section 3.13, Noise, the proposed project's impacts related to noise would be significant and unavoidable for construction noise and less than significant for all other noise and vibration impacts.

Under Alternative 1, impacts with respect to noise would be significant and unavoidable because future development under the General Plan would generate a substantial increase in ambient noise levels in the vicinity of the Plan Area due to increased development and traffic. Buildout of the General Plan under Alternative 1 would be less intense than under the proposed project. As such, noise effects resulting from Alternative 1 would be less than those resulting from the proposed project but would still be significant and unavoidable.

Population and Housing

As noted in Section 3.14, Population and Housing, the proposed project's impacts related to population and housing would be less than significant with the implementation of applicable policies and regulations. Buildout of the General Plan under Alternative 1 would be less dense than under the proposed project. The General Plan provides for only 17,900 homes, whereas the proposed

project would provide for approximately 45,000 homes. This alternative would result in a less than significant impact, similar to the proposed project.

Public Services

As noted in Section 3.15, Public Services, the proposed project's impacts related to public services would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary. Alternative 1 would result in fewer residential units, less nonresidential square footage, and fewer jobs compared to the proposed project. This would result in less demand for public services and recreation than would occur under the proposed project. Since all projects for both this alternative and the proposed project would be required to comply with City ordinances and other policies that address public services, Alternative 1 would have a less than significant impact with respect to public services, similar to the proposed project.

Recreation

As noted in Section 3.16, Recreation, the proposed project's impacts related to recreation would be less than significant with the implementation of all applicable mitigation measures, policies, and regulations. Buildout of the General Plan under Alternative 1 would result in fewer residences, which would require fewer Pocket, Neighborhood, and Community parks to serve the residents of the proposed project. Therefore, Alternative 1 would have a less than significant impact with respect to recreation, similar to the proposed project.

Transportation and Traffic

As noted in Section 3.17, Transportation and Traffic, the proposed project's impacts related to transportation and traffic would be less than significant with the implementation of all applicable mitigation measures, policies, and regulations. Buildout of the General Plan under Alternative 1 would be less intense and dense than under the proposed project. This alternative would not conflict with any applicable plans, and individual future developments would be reviewed for consistency with applicable regulations found within the General Plan. Alternative 1 would result in a similarly less than significant impact on transportation.

Utilities and Service Systems

As noted in Section 3.18, Utilities and Service Systems, the proposed project's impacts related to utilities and service systems would be less than significant with the implementation of all applicable mitigation measures, policies and regulations.

Under Alternative 1, utilities and service systems impacts would be significant and unavoidable with respect to water, surface water treatment, wastewater treatment, wastewater collection, electric, natural gas, and telecommunications facilities because project-specific design details would be developed as individual development projects are proposed, meaning that mitigation measures cannot be developed at this time. Instead, the availability of utilities and service systems would be evaluated and determined on a project-by-project basis under the General Plan. Development under Alternative 1 would result in development at less intensity than the proposed project. The proposed

project would have a less than significant impact with mitigation incorporated. As such, it can be assumed that Alternative 1 would also be less than significant with mitigation incorporated.

Wildfire

As noted in Section 3.19, Wildfire, the proposed project's impacts related to wildfire would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

Buildout of the General Plan under Alternative 1 would be less intense and dense than under the proposed project. However, the buildout under the General Plan would still convert primarily agricultural land to residential and mixed-use land uses, creating a higher intensity of development within the Plan Area. The reduced density of this alternative would expose less individuals to the potential threat of wildfires. This increased urbanization and increase in paved areas would reduce the threat of wildfires in the area. The Plan Area does not contain any lands classified as Very High Fire Hazard Severity Zone. Therefore, similar to the proposed project, impacts to wildfires would be similarly less than significant for Alternative 1.

5.3.2 - Conclusion

Alternative 1 would have similar, but slightly less, impacts than the proposed project for the following impact areas: biological resources; cultural and Tribal cultural resources; energy; geology, soils, and seismicity; GHG emissions; hazards and hazardous materials; hydrology and water quality; land use; public services; transportation; utilities and service systems; and wildfire, all of which would have a less than significant or no impact conclusion for the proposed project. Impacts resulting from the proposed project that would be significant and unavoidable, including those related to aesthetics, light, and glare; agricultural resources and forestry resources; air quality; and noise, would also be significant and unavoidable under Alternative 1, but slightly less impactful.

5.4 - Alternative 2—Consolidated Business Park Alternative

Under the Consolidated Business Park Alternative (Alternative 2), the SEDA Specific Plan would occur as planned, but this alternative maintains the Flexible Research and Development land designations from the General Plan for the area south of Jensen Avenue. It would accommodate approximately 42,900 homes and 36,000 jobs within the 9,000-acre planning area. This is approximately 2,100 fewer homes and 1,000 fewer jobs, when compared with the proposed project. Alternative 2 would have slightly less density of development than the proposed project. The area identified in the SEDA Specific Plan as Flexible Research and Development to the east of Temperance Avenue and north of Jensen Avenue would be developed as Neighborhood Residential and Mixed Residential with two community centers and five neighborhood centers. Additionally, this alternative would change the land use designations for the planned Mixed Residential and Neighborhood Residential, along with the Community and Neighborhood Centers south of Jensen Avenue. Under Alternative 2, that area would be designated as Flexible Research and Development and Offices. Please refer to Exhibit 5-1 for a visual representation of this alternative.

5.4.1 - Impact Analysis

Aesthetics, Light, and Glare

As noted in Section 3.1, Aesthetics, Light and Glare, the proposed project's impacts to aesthetics, light, and glare would be significant and unavoidable even with implementation of mitigation because the proposed project would add sources of light and glare and would increase urbanization, changing the rural character of the community.

Alternative 2 would consolidate the proposed Office Center and Flexible Research and Development land uses in the area south of Jensen Avenue and west of Temperance Avenue. As such, more undeveloped space would be preserved compared to the proposed project. Additionally, Alternative 2 is slightly less dense than the proposed project. However, Alternative 2 would still significantly change the visual character of the currently rural Plan Area. Therefore, impacts to visual character would be slightly less than the proposed project, but still significant and unavoidable.

Additionally, new sources of light and glare would still be created under this alternative, and the development would increase urbanization, changing the rural character of the community. Buildout under Alternative 2 would result in increased urbanization compared to the existing land uses. Therefore, a significant and unavoidable impact on aesthetics, light, and glare would still be expected to occur, similar to, but slightly less than the proposed project.

Agricultural Resources and Forestry Resources

As noted in Section 3.2, Agricultural Resources and Forestry Resources, the proposed project's impacts to agricultural resources and forestry resources would be significant and unavoidable even with the implementation of mitigation. The proposed project includes the conversion of farmland to residential uses, community centers, flexible research and development, and neighborhood centers.

Buildout consistent with Alternative 2 would be similar to the proposed project. Although the Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue, Alternative 2 would have a similar amount of development, although slightly less intense. Therefore, impacts to agricultural resources and forestry resources would be expected to be significant and unavoidable, similar to, but slightly less than the proposed project.

Air Quality

As noted in Section 3.3, Air Quality, the proposed project's impacts to air quality would be significant and unavoidable even with the implementation of mitigation.

Buildout consistent with Alternative 2 would be similar to the proposed project. Although the Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue, both this alternative and the proposed project have the same footprint of approximately 9,000 acres. Alternative 2 would result in a similar amount of development as the proposed project, although at a slightly lower intensity. Therefore, impacts to air

quality would be expected to be significant and unavoidable, similar to, but slightly less than, the proposed project.

Biological Resources

As noted in Section 3.4, Biological Resources, the proposed project's impacts related to biological resources would be less than significant with the incorporation of mitigation, along with applicable regulations.

Buildout under Alternative 2 would be similar to the proposed project. Under this alternative, the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue. Both Alternative 2 and the proposed project have the same footprint of approximately 9,000 square acres, although Alternative 2 would be slightly less dense. Additionally, this alternative would comply with the General Plan policies and implement mitigation measures identified in Section 3.4, Biological Resources. Therefore, impacts to biological resources would be expected to be less than significant, similar to but slightly less than the proposed project.

Cultural Resources and Tribal Cultural Resources

As noted in Section 3.5, Cultural Resources and Tribal Cultural Resources, the proposed project's impacts related to cultural resources and Tribal cultural resources would be less than significant with the incorporation of mitigation and compliance with applicable regulations.

Buildout consistent with Alternative 2 would be similar to the proposed project. Under this alternative, the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue. Both Alternative 2 and the proposed project have the same footprint of approximately 9,000 acres, although Alternative 2 would be slightly less dense. Additionally, future development within the Plan Area could have significant impacts on known or previously unidentified cultural resources or Tribal cultural resources. Development would be required to comply with federal, State, and local law and policies that protect cultural and Tribal cultural resources, as well as the mitigation measures identified in Section 3.5, Cultural Resources and Tribal Cultural Resources. Therefore, impacts to cultural and Tribal cultural resources would be expected to be less than significant, similar to, but slightly less than the proposed project.

Energy

As noted in Section 3.6, Energy, the proposed project's impacts related to energy would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

Buildout consistent with Alternative 2 would be similar to the proposed project. Under this alternative, the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue. Both this alternative and the proposed project have the same footprint of approximately 9,000 acres, although Alternative 2 would be slightly less dense. Additionally, since all past, present, and future

development projects would be required to comply with the Municipal Code, City ordinances, and County policies that address energy conservation and efficiency during construction and operation, impacts would be less than significant, similar to, but slightly less than the proposed project.

Geology, Soils, and Seismicity

As noted in Section 3.7, Geology, Soils, and Seismicity, the proposed project's impacts related to geology, soils, and seismicity would be less than significant with the incorporation of mitigation, along with applicable regulations.

Buildout under Alternative 2 would be similar to the proposed project. Although the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue under Alternative 2, both this alternative and the proposed project have the same footprint of approximately 9,000 acres. However, Alternative 2 would have slightly less density than the proposed project. Alternative 2 would result in the same amount of development as the proposed project. Therefore, impacts to geology, soils, and seismicity would be expected to be less than significant, similar to, but slightly less than the proposed project.

GHG Emissions

As noted in Section 3.8, Greenhouse Gas Emissions, the proposed project's impacts related to GHG emissions would be less than significant with the incorporation of mitigation and all applicable regulations.

Buildout consistent with Alternative 2 would be similar to the proposed project. Although the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue under Alternative 2, both this alternative and the proposed project have the same footprint of approximately 9,000 acres. However, Alternative 2 would have slightly less density than the proposed project. Therefore, impacts to GHG emissions would be expected to be less than significant, similar to but slightly less than the proposed project.

Hazards and Hazardous Materials

As noted in Section 3.9, Hazards and Hazardous Materials, the proposed project's impacts related to hazards and hazardous materials would be less than significant with all mitigation incorporated, along with the implementation of applicable regulations.

Buildout consistent with Alternative 2 would be similar to the proposed project. Although the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue under Alternative 2, both this alternative and the proposed project have the same footprint of approximately 9,000 acres. However, Alternative 2 would have slightly less density than the proposed project. Additionally, all projects under this alternative would be subject to the requirements and regulations set forth by the United States Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), United States Department of Transportation (USDOT), California Department of Toxic Substances Control (DTSC), California Department of Transportation (Caltrans), California

Highway Patrol (CHP), and the Valley Air District related to transport, use, and disposal of hazardous materials. Therefore, impacts to hazards and hazardous materials would be expected to be less than significant, similar to, but slightly less than the proposed project.

Hydrology and Water Quality

As noted in Section 3.10, Hydrology and Water Quality, the proposed project's impacts related to hydrology and water quality would be less than significant with the incorporation of all applicable mitigation measures and regulations.

Buildout consistent with Alternative 2 would be similar to the proposed project. Although the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue under Alternative 2, both this alternative and the proposed project have the same footprint of approximately 9,000 acres. However, Alternative 2 would have slightly less density than the proposed project. Additionally, buildout of this alternative would increase the amount of paved impervious surfaces within the Plan Area and increase demands for groundwater pumping beyond existing conditions. All projects would be required to comply with the proposed Specific Plan policies, mitigation measures, and the MS4 Permit, which would reduce impacts to less than significant, similar to, but slightly less than the proposed project.

Land Use and Planning

As noted in Section 3.11, Land Use and Planning, the proposed project's impacts related to land use and planning would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

Buildout consistent with Alternative 2 would be similar to the proposed project. Although the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue under Alternative 2, both this alternative and the proposed project have the same footprint of approximately 9,000 acres. However, Alternative 2 would have slightly less density than the proposed project. Alternative 2 would not physically divide an established community. This alternative would allow for planned development and growth and would increase connectivity and support, strengthen, and connect new communities. However, this alternative might reduce impacts to land use by consolidating Office Center and Flexible Research and Development land uses to the area south of Jensen Avenue. Therefore, impacts to land use would be expected to be less than significant, similar to but slightly less than the proposed project.

Mineral Resources

As noted in Section 3.12, Mineral Resources, the proposed project's impacts related to mineral resources would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

Buildout under Alternative 2 would be similar to the proposed project. Although the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of

Jensen Avenue and west of Temperance Avenue under Alternative 2, both this alternative and the proposed project have the same footprint of approximately 9,000 acres. However, Alternative 2 would have slightly less density than the proposed project.

However, the remaining unincorporated lands adjacent to the Plan Area are subject to the land use plans, policies, and regulations of Fresno County. Development within adjacent planning areas and unincorporated Fresno County is unlikely to create significant loss of availability of a known mineral resources or loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Additionally, no mining operations occur in the Plan Area, and thus, further development under either the proposed project or the Alternative 2 would not result in a loss of mineral resources. Therefore, impacts to mineral resources would be expected to be less than significant, similar to the proposed project.

Noise

As noted in Section 3.13, Noise, the proposed project's impacts related to noise would be significant and unavoidable for construction noise and less than significant for all other noise and vibration impacts.

Buildout under Alternative 2 would be similar to the proposed project. Although the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue under Alternative 2, both this alternative and the proposed project have the same footprint of approximately 9,000 acres. However, Alternative 2 would have slightly less density than the proposed project.

Alternative 2 would result in similar noise and vibration impacts. However, since it is not possible to quantify future cumulative construction noise impacts that could occur if multiple developments were to construct simultaneously, this alternative would result in significant and unavoidable impacts with regard to construction noise. Other noise and vibration impacts under Alternative 2 would result in a less than significant impact, similar to, but slightly less than the proposed project.

Population and Housing

As noted in Section 3.14, Population and Housing, the proposed project's impacts related to population and housing would be less than significant with the implementation of applicable policies and regulations.

Buildout under Alternative 2 would be similar to the proposed project. Although the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue under Alternative 2, both this alternative and the proposed project would provide for a similar number of homes and jobs. This alternative would provide for approximately 42,900 homes and 36,000 jobs within the Plan Area, while the proposed project would provide for approximately 45,000 homes and 37,000 jobs within the Plan Area. The

Alternative 2 would result in a less than significant impact, similar to but slightly less than the proposed project.

Public Services

As noted in Section 3.15, Public Services, the proposed project's impacts related to public services would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

Buildout consistent with Alternative 2 would be similar to the proposed project. Since the proposed project had a less than significant impact on public services, with regard to fire protection, police protection, school facilities, parks and recreational facilities, and other public facilities, this alternative would have a less than significant impact, since it would result in slightly less amount of land being developed. Since all projects for both this alternative and the proposed project would be required to comply with City ordinances and other policies that address public services, Alternative 2 would be similarly less than significant to the proposed project.

Recreation

As noted in Section 3.16, Recreation, the proposed project's impacts related to recreation would be less than significant with the implementation of all applicable mitigation measures, policies, and regulations.

Buildout under Alternative 2 would be similar to the proposed project. Future development under both the proposed project and this alternative would include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. Additionally, individual development projects would be required to comply with applicable development fees, which would allow new parks to be constructed and adequately maintained at appropriate sites within the Plan Area. Both the proposed project and this alternative would result in the need for additional parkland, although slightly less parkland would be needed under Alternative 2. MM REC-1 would ensure potential impacts would be addressed and mitigated to meet the parkland requirements. Alternative 2 would result in less than significant impacts to recreation, similar to, but slightly less than the proposed project.

Transportation and Traffic

As noted in Section 3.17, Transportation and Traffic, the proposed project's impacts related to transportation and traffic would be less than significant with the implementation of all applicable mitigation measures, policies, and regulations.

Buildout under Alternative 2 would be similar to the proposed project. This alternative would not conflict with any applicable plans, and individual future developments would be reviewed for consistency with applicable regulations found within the General Plan. Alternative 2 would result in a similarly less than significant impact on transportation.

Utilities and Service Systems

As noted in Section 3.18, Utilities and Service Systems, the proposed project's impacts related to utilities and service systems would be less than significant with the implementation of all applicable mitigation measures, policies, and regulations.

Buildout under Alternative 2 would be similar to the proposed project. Since both this alternative and the proposed project would provide for a similar number of residential facilities, community centers, offices, and jobs, the requirements for water, wastewater, storm drainage, solid waste, and electricity, natural gas, and telecommunications would remain the same, although slightly less under Alternative 2. Mitigation measures for various resource topics in this Recirculated Draft PEIR would reduce the cumulative impacts of construction of utility infrastructure to less than significant for both this alternative.

Wildfire

As noted in Section 3.19, Wildfire, the proposed project's impacts related to wildfire would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

Buildout under Alternative 2 would be similar to the proposed project. Although the proposed Office Center and Flexible Research and Development land uses would be consolidated to the area south of Jensen Avenue and west of Temperance Avenue under Alternative 2, both this alternative and the proposed project have the same footprint of approximately 9,000 acres. However, Alternative 2 has slightly less density than the proposed project.

The buildout under this alternative would still convert primarily agricultural land to residential and mixed-use land uses, creating a higher intensity of development within the Plan Area. This increased urbanization and paved areas would reduce the threat of wildfires in the area. Additionally, the Plan Area does not contain any lands classified as Very High Fire Hazard Severity Zone. Therefore, impacts to wildfires would be similarly less than significant for Alternative 2.

5.4.2 - Conclusion

Alternative 2, the Consolidated Business Park Alternative, would have similar, but slightly less impacts to the proposed project's less than significant or no impacts associated with biological resources; cultural resources and Tribal cultural resources; energy; geology, soils, and seismicity; GHG emissions; hazards and hazardous materials; hydrology and water quality; land use; mineral resources; public services; recreation; transportation; utilities and service systems; and wildfire. The significant and unavoidable impacts related to aesthetics, light, and glare; agricultural resources and forestry resources; air quality; and noise would remain significant and unavoidable. The significant and unavoidable impacts related to a conflict with the Valley Air District regional significant thresholds and a cumulatively considerable net increase in criteria pollutants would remain significant and unavoidable under Alternative 2.

Additionally, Alternative 2 would not meet some of the project objectives. For example, Alternative 2 proposes 2,100 fewer homes and 1,000 fewer jobs than the proposed project.

5.5 - Alternative 3—Farmland Conservation Alternative

Under the Farmland Conservation Alternative (Alternative 3), buildout of the SEDA Specific Plan would occur as proposed in this Recirculated Draft PEIR; however, under this alternative, specific parcels of farmland along the entire eastern boundary of the Plan Area from Shields Avenue to Jensen Avenue would be conserved. No future development or ground-disturbing activities would be permitted on farmland designated for conservation. This would conserve a total of 648.61 acres of farmland that would not be conserved under the proposed project (Exhibit 5-1). The Plan Area currently has 5,552 acres of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance.

Under the proposed project, buildout of the Specific Plan would include a farmland buffer along the east side of the Plan Area, designated as Rural Cluster Residential which allows specific residential development to be developed on the important farmlands. This Alternative would include the Rural Cluster Residential Buffer; however, it would not permit developments on identified farmland within this portion of Plan Area. It would be compatible with the uses of the surrounding land since the farmland preserved will also be rural in nature. It is important to note that although development would not be allowed in identified farmland, ground-disturbing activity consistent with agricultural uses would still be permitted. Please refer to Exhibit 5-2 for a visual representation of this alternative.

5.5.1 - Impact Analysis

Aesthetics, Light, and Glare

As noted in Section 3.1, Aesthetics, Light and Glare, the proposed project's impacts to aesthetics, light, and glare would be significant and unavoidable even with implementation of mitigation because the proposed project would add sources of light and glare and would increase urbanization, changing the rural character of the community.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. While this would slightly reduce effects on visual character and light and glare in the Plan Area, the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be significant and unavoidable.

Agricultural Resources and Forestry Resources

As noted in Section 3.2, Agricultural Resources and Forestry Resources, the proposed project's impacts to agricultural resources and forestry resources would be significant and unavoidable even with the implementation of mitigation. The proposed project includes the conversion of farmland to residential uses, community centers, flexible research and development, and neighborhood centers.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. While this would slightly reduce the loss of farmland in the Plan Area, the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be significant and unavoidable.

Air Quality

As noted in Section 3.3, Air Quality, the proposed project's impacts to air quality would be significant and unavoidable even with the implementation of mitigation.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. While this would slightly reduce the total development in the Plan Area, the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be significant and unavoidable.

Biological Resources

As noted in Section 3.4, Biological Resources, the proposed project's impacts related to biological resources would be less than significant with the incorporation of mitigation, along with applicable regulations.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. While this would disturb slightly fewer biological resources in the Plan Area due to development, the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be less than significant.

Cultural Resources and Tribal Cultural Resources

As noted in Section 3.5, Cultural Resources and Tribal Cultural Resources, the proposed project's impacts related to cultural resources and Tribal cultural resources would be less than significant with the incorporation of mitigation, as well as applicable policies and regulations.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. This would result in slightly less ground disturbance due to development in the Plan Area, but agricultural ground disturbance could continue and the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be less than significant.

Energy

As noted in Section 3.6, Energy, the proposed project's impacts related to energy would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. This would result in slightly less development and therefore, slightly less energy usage in the Plan Area, although the majority of the Plan Area would be developed as proposed. Impacts under Alternative 3 would still be less than significant.

Geology, Soils, and Seismicity

As noted in Section 3.7, Geology, Soils, and Seismicity, the proposed project's impacts related to geology, soils, and seismicity would be less than significant with the incorporation of mitigation, along with applicable regulations.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. This would result in slightly less ground disturbance due to development in the Plan Area, although the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be less than significant with mitigation incorporated.

Greenhouse Gas Emissions

As noted in Section 3.8, Greenhouse Gas Emissions, the proposed project's impacts related to GHG emissions would be less than significant with the incorporation of mitigation, as well as applicable policies and regulations.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. While this would slightly reduce development, and therefore emissions, in the Plan Area, the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would be similar, but slightly reduced, compared to the proposed project.

Hazards and Hazardous Materials

As noted in Section 3.9, Hazards and Hazardous Materials, the proposed project's impacts related to hazards and hazardous materials would be less than significant with all mitigation incorporated, along with the implementation of applicable regulations.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. This would slightly reduce the risk of releasing hazardous materials into the environment because less land would be disturbed for construction purposes, although the farmland could continue to be developed with agricultural uses and the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be less than significant with mitigation incorporated.

Hydrology and Water Quality

As noted in Section 3.10, Hydrology and Water Quality, the proposed project's impacts related to hydrology and water quality would be less than significant with the incorporation of all applicable mitigation measures and regulations.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. While this would result in slightly less development and therefore, slightly less disturbance of current hydrology patterns, the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be less than significant with mitigation incorporated.

Land Use and Planning

As noted in Section 3.11, Land Use and Planning, the proposed project's impacts related to land use and planning would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

As previously discussed, the proposed project would designate land on the eastern boundary of the Plan Area as Rural Cluster Residential, creating a buffer between the more intense development within the majority of the Plan Area and the agricultural land east of the Plan Area outside of the SOI. Alternative 3 would preserve farmland within land designated as Rural Cluster Residential under the proposed project, thereby reducing the transitional buffer. Thus, more intense uses to the west of this area could be located much closer to active agricultural land, reducing compatibility between the land uses. Thus, Alternative 3 would likely be in conflict with Specific Plan Policy UF-1.6, which requires buffers between new residential development and existing farmlands, and Policy HC-1.6, which requires urban edge transitions that protect existing rural residential and agricultural uses from new development. Therefore, the adoption of Alternative 3 into the proposed project would cause a significant environmental impact due to conflict with the Specific Plan policies, which would be adopted as part of the proposed project's approval. As such, land use effects would be significant and unavoidable, with less continuity of land uses, and greater than the proposed project.

Mineral Resources

As noted in Section 3.12, Mineral Resources, the proposed project's impacts related to mineral resources would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. There are no known resources within the Plan Area. As such, impacts under Alternative 3 would remain less than significant.

Noise

As noted in Section 3.13, Noise, the proposed project's impacts related to noise would be significant and unavoidable for construction noise and less than significant for all other noise and vibration impacts. There is no mitigation available to reduce cumulative construction noise impacts to less than significant.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. While this would slightly reduce construction and construction noise in the Plan Area, the area could still be used for agricultural purposes and the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be significant and unavoidable.

Population and Housing

As noted in Section 3.14, Population and Housing, the proposed project's impacts related to population and housing would be less than significant with the implementation of applicable policies and regulations.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. This would slightly reduce the number of residences and, therefore, population increase in the Plan Area, although the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be less than significant.

Public Services

As noted in Section 3.15, Public Services, the proposed project's impacts related to public services would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. This would slightly reduce population growth and development in the Plan Area, slightly reducing the demand for public services, although the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be less than significant.

Recreation

As noted in Section 3.16, Recreation, the proposed project's impacts related to recreation would be less than significant with the implementation of all applicable mitigation measures, policies, and regulations.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. This would slightly reduce population growth and development in the Plan Area, slightly reducing the demand for recreational facilities, although the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be less than significant with mitigation incorporated.

Transportation and Traffic

As noted in Section 3.17, Transportation and Traffic, the proposed project's impacts related to transportation and traffic would be less than significant with the implementation of all applicable mitigation measures, policies, and regulations.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. This would slightly reduce development in the Plan Area, which would reduce traffic and its impacts, although the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be less than significant with mitigation incorporated.

Utilities and Service Systems

As noted in Section 3.18, Utilities and Service Systems, the proposed project's impacts related to utilities and service systems would be less than significant with the implementation of all applicable mitigation measures, policies, and regulations.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. This would slightly reduce population growth and development in the Plan Area, slightly reducing the demand for utilities services, although the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be less than significant with mitigation incorporated.

Wildfire

As noted in Section 3.19, Wildfire, the proposed project's impacts related to wildfire would be less than significant with the implementation of applicable policies and regulations. No mitigation is necessary.

Alternative 3 would result in less dense development in the area designated as Rural Cluster Residential because all farmland in this area would be preserved. The Plan Area does not contain any lands classified as Very High Fire Hazard Severity Zone.

Generally, development of rural land results in a reduced risk for wildfire spread because vegetation is removed. Alternative 3 would result in slightly less development than what was originally proposed. However, the majority of the Plan Area would be developed as proposed. As such, impacts under Alternative 3 would still be less than significant.

5.5.2 - Conclusion

Alternative 3, the Farmland Conservation Alternative, would have similar, but slightly less impacts to the proposed project's less than significant or no impacts associated with biological resources; cultural resources and Tribal cultural resources; energy; geology, soils, and seismicity; GHG emissions; hazards and hazardous materials; hydrology and water quality; mineral resources; public services; recreation; transportation; utilities and service systems; and wildfire. The significant and unavoidable impacts related to aesthetics, light, and glare; agricultural resources and forestry resources; air quality; and noise would remain significant and unavoidable. The significant and unavoidable impacts related to a conflict with the Valley Air District regional significant thresholds and a cumulatively considerable net increase in criteria pollutants would remain significant and unavoidable under Alternative 3. Additionally, Alternative 3 would have a significant and unavoidable impact on land use, greater than the proposed project.

For example, Alternative 3 would result in fewer homes than the proposed project, because land designated for residential uses would be conserved as farmland. However, although Alternative 3 would not fully reduce impacts to agriculture to below a level of significance, it would promote objectives related to Community Farming and Agriculture by preserving additional farmland to a greater degree than the proposed project.

5.6 - Environmentally Superior Alternative

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" among the project and

the alternatives evaluated. The qualitative environmental effects of each alternative in relation to the proposed project are summarized in Table 5-1.

Table 5-1: Summary of Alternatives

Environmental Topic Area	Alternative 1: No Build Alternative	Alternative 2: Consolidated Business Park Alternative	Alternative 3: Farmland Conservation Alternative
Aesthetics, Light, and Glare	<=	<=	<=
Agricultural Resources and Forestry Resources	<=	<=	<=
Air Quality	<=	<=	<=
Biological Resources	<=	<=	<=
Cultural Resources and Tribal Cultural Resources	<=	<=	<=
Geology, Soils, and Seismicity	<=	<=	<=
Greenhouse Gas Emissions	<=	<=	<=
Hazards and Hazardous Materials	<=	<=	<=
Hydrology and Water Quality	<=	<=	<=
Land Use and Planning	<=	<=	>
Mineral Resources	<=	<=	<=
Noise	<=	<=	<=
Population and Housing	<=	<=	<=
Public Services	<=	<=	<=
Transportation and Traffic	<=	<=	<=
Utilities and Service Systems	<=	<=	<=
Wildfire	<=	<=	<=
<p>Key: Impact finding is the same as the proposed project: = Impact finding is the same as the proposed project but slightly less impactful: <= Impact finding is the same as the proposed project but slightly more impactful: >= Impact finding is less than the proposed project: < Impact finding is greater than the proposed project: > Source: FirstCarbon Solutions (FCS) 2022.</p>			

CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an environmentally superior alternative. If the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

None of the alternatives analyzed would reduce the significant and unavoidable impacts related to Aesthetics, Light, and Glare; Agricultural Resources and Forestry Resources; and Noise, to below a

level of significance although they would be incrementally less than the proposed project. Most of the less than significant impacts in other resources areas would be substantially similar; although incrementally less than the proposed project (with the exception of land use impacts under Alternative 3, which would be incrementally greater than the proposed project).

Alternative 1, the No Project Alternative, would not meet the project objectives. Alternatives 2 and 3 would meet many of the project objectives. The Consolidated Business Park Alternative is the environmentally superior alternative because it has similar, but slightly less, impacts as compared to the proposed project and meets the project objectives.

5.7 - Alternatives Rejected From Further Consideration

Section 15126.6(c) of the CEQA Guidelines requires EIRs to identify any alternatives that were considered by the lead agency but were rejected as infeasible for detailed study, and briefly explain the reasons underlying the lead agency's determination. Furthermore, Section 15126(f)(1) states that "among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries. . . and whether the proponent can reasonably acquire or control or otherwise have access to the alternative site. No one of these factors established a fixed limit on the scope of reasonable alternatives."

An increased residential density alternative that increased residential uses by 45,000 units in a different project location than the proposed SEDA was considered and rejected because it would not lessen any of the proposed project's impacts. There are no locations in the City where 45,000 homes could be constructed while avoiding environmental impacts to agricultural land. Agricultural land would be impacted regardless of where a large new residential development is located in the City. Therefore, no Location Alternative in the City is capable of avoiding the project's significant and unavoidable agriculture impact. For this reason, a location alternative is not considered further. Additionally, in this case, an alternative location does not constitute a feasible alternative because the project in question consists of a comprehensive specific plan for a 9,000-acre planning area. An alternative location would not meet the City's fundamental purpose of establishing a planning document that serves as the comprehensive land use planning document for the jurisdiction; as such, the geographical area encompassed by the plan is an immutable, fundamental characteristic. Thus, it is not possible to evaluate an alternative location.

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