City of Visalia

East Side Regional Park & Groundwater Recharge Project

Draft Environmental Impact Report
State Clearinghouse No. 2014121076

Visalia, California
February 2023

Prepared for:

City of Visalia
315 E. Acequia Avenue
Visalia, CA 93291

Prepared by:
Provost & Pritchard Consulting Group
400 E. Main Street, Suite 300
Visalia, CA 93291

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CONSULTING GROUP
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Report Prepared for:

City of Visalia
315 E. Acequia Ave
Visalia, CA 93291

Contact:
Rebecca Keenan, P.E.
Senior Civil Engineer
Public Works Department
(559) 713-4541

Report Prepared by:

Provost & Pritchard Consulting Group
400 E. Main Street, Suite 300
Visalia, CA 93291

Contact:

Rick Darnley, Project Manager
(559) 636-1166

Project Team Members

Dawn E. Marple, Principal Planner
Mary E. Beatie, Senior Planner Emeritus
Jeffrey O'Neal, AICP, Senior Planner, QA/QC
Jarred Olsen, AICP, Associate Planner
Amy Wilson, Associate Planner
Ryan McKelvey, Assistant Planner
Kaitlin Palys, Associate Water Resources Specialist
Matt Klinchuch, PE, Project Engineer
Randy Hopkins, PE, Recharge Basin Engineer
Richard Moss, PE, Water Rights Specialist
Jason Thomas, GIS Specialist
Jackie Lancaster, Project Administrator

Table of Contents

Executive Summary ES-1
ES.1 Introduction ES-1
ES.2 Objectives for the Project ES-1
ES.3 Project and Alternatives Summary ES-1
ES.4 Public Involvement Process ES-2
ES.4.1 Notice of Preparation of the Draft EIR ES-2
ES.4.2 Notice of Completion of the Draft EIR and Public Review Period ES-2
ES.5 Summary of Impacts ES-2
1 Introduction 1-1
1.1 Purpose of the Draft Environmental Impact Report 1-1
1.2 Content of the DEIR 1-1
1.3 Organization of the DEIR 1-1
1.4 Use of the DEIR 1-2
1.5 Public Involvement 1-2
1.5.1 Notice of Preparation of the DEIR 1-2
1.5.2 Notice of Availability and Distribution of the DEIR 1-2
1.6 FEIR 1-3
2 Project Description 2-1
2.1 Project Location and Boundaries 2-1
2.2 Environmental Setting 2-1
2.3 Project Components 2-2
2.3.1 Groundwater Recharge and Storm Water Layoff Basins 2-2
2.3.2 Regional Park Amenities 2-2
2.3.3 Access and Roadways 2-1
2.3.4 Annexation and Land Use Approvals 2-2
2.3.5 Site Plan Review 2-2
2.3.6 Construction Phasing 2-3
2.3.7 Early Approvals 2-3
3 Impact Analysis 3-1
3.1 Aesthetics 3-1
3.1.1 Environmental Setting 3-1
3.1.2 Regulatory Setting 3-2
3.1.3 Photos of the Project Site and Vicinity 3-4

3.1.4 Impact Assessment 3-10
3.1.5 Cumulative Impacts 3-13
3.2 Agriculture and Forestry Resources 3-14
3.2.1 Environmental Setting 3-14
3.2.2 Regulatory Setting 3-16
3.2.3 Impact Assessment 3-19
3.2.4 Cumulative Impacts 3-20
3.3 Air Quality 3-21
3.3.1 Environmental Setting 3-21
3.3.2 Methodology 3-30
3.3.3 Criteria for Significance 3-30
3.3.4 Regulatory Setting 3-31
3.3.5 Impact Assessment 3-38
3.3.6 Cumulative Impacts 3-42
3.4 Biological Resources 3-43
3.4.1 Environmental Setting 3-43
3.4.2 Methodology 3-44
3.4.3 Regulatory Setting 3-44
3.4.4 Impact Assessment 3-50
3.4.5 Cumulative Impacts 3-60
3.5 Cultural Resources 3-62
3.5.1 Environmental Setting 3-62
3.5.2 Methodology 3-62
3.5.3 Regulatory Setting 3-63
3.5.4 Impact Assessment 3-67
3.5.5 Cumulative Impacts 3-68
3.6 Geology and Soils 3-70
3.6.1 Environmental Setting 3-70
3.6.2 Regulatory Setting 3-74
3.6.3 Impact Assessment 3-76
3.6.4 Cumulative Impacts 3-78
3.7 Greenhouse Gas Emissions 3-79
3.7.1 Environmental Setting 3-79
3.7.2 Methodology 3-79
3.7.3 Regulatory Setting 3-80

3.7.4 Impact Assessment 3-85
3.7.5 Cumulative Impacts 3-86
3.8 Hazards and Hazardous Materials 3-87
3.8.1 Environmental Setting 3-88
3.8.2 Regulatory Setting 3-88
3.8.3 Impact Assessment 3-90
3.8.4 Cumulative Impacts 3-91
3.9 Hydrology and Water Quality 3-92
3.9.1 Environmental Setting 3-93
3.9.2 Regulatory Setting 3-95
3.9.3 Impact Assessment 3-100
3.9.4 Cumulative Impacts 3-105
3.10 Land Use and Planning 3-106
3.10.1 Environmental Setting 3-106
3.10.2 Regulatory Setting 3-106
3.10.3 Impact Assessment 3-108
3.10.4 Cumulative Impacts 3-109
3.11 Mineral Resources 3-110
3.11.1 Environmental Setting 3-110
3.11.2 Regulatory Setting 3-110
3.11.3 Impact Assessment 3-113
3.11.4 Cumulative Impacts 3-113
3.12 Noise 3-114
3.12.1 Environmental Setting 3-114
3.12.2 Methodology 3-116
3.12.3 Noise Fundamentals 3-116
3.12.4 Regulatory Setting 3-120
3.12.5 Impact Assessment 3-121
3.12.6 Cumulative Impacts 3-129
3.13 Population and Housing 3-130
3.13.1 Environmental Setting 3-130
3.13.2 Regulatory Setting 3-130
3.13.3 Impact Assessment 3-131
3.13.4 Cumulative Impacts 3-131
3.14 Public Services 3-132

3.14.1 Environmental Setting 3-132
3.14.2 Regulatory Setting 3-134
3.14.3 Impact Assessment 3-140
3.14.4 Cumulative Impacts 3-141
3.15 Recreation 3-142
3.15.1 Environmental Setting 3-142
3.15.2 Regulatory Setting 3-143
3.15.3 Impact Assessment 3-144
3.15.4 Cumulative Impacts 3-144
3.16 Transportation/Traffic 3-145
3.16.1 Environmental Setting 3-145
3.16.2 Methodology 3-146
3.16.3 Regulatory Setting 3-155
3.16.4 Impact Assessment 3-156
3.16.5 Mitigation Measures 3-158
3.16.6 Cumulative Impacts 3-170
3.17 Utilities and Service Systems 3-171
3.17.1 Environmental Setting 3-171
3.17.2 Regulatory Setting 3-173
3.17.3 Impact Assessment 3-176
3.17.4 Cumulative Impacts 3-178
4 Analysis of the Alternatives 4-1
4.1 Introduction 4-1
4.2 Alternatives to be Analyzed 4-1
4.2.1 Alternative 1 4-1
4.2.2 Alternative 2 4-4
4.2.3 No Project Alternative 4-4
4.2.4 Project 4-4
4.3 Comparative Impact Analysis of Alternatives 4-4
4.3.1 Aesthetics 4-4
4.3.2 Agriculture and Forestry Resources 4-5
4.3.3 Air Quality 4-6
4.3.4 Biological Resources 4-6
4.3.5 Cultural Resources 4-7
4.3.6 Geology and Soils 4-7

4.3.7 Greenhouse Gas Emissions 4-8
4.3.8 Hazards and Hazardous Materials 4-8
4.3.9 Hydrology and Water Quality 4-9
4.3.10 Land Use and Planning 4-10
4.3.11 Mineral Resources 4-10
4.3.12 Noise 4-11
4.3.13 Population and Housing 4-11
4.3.14 Public Services 4-12
4.3.15 Recreation 4-12
4.3.16 Transportation 4-13
4.3.17 Utilities and Service Systems 4-13
4.4 Alternative Determination 4-14
5 Other Mandatory CEQA Sections 5-1
5.1 Organizations and Persons Consulted 5-1
5.1.1 Agencies 5-1
5.1.2 Other Persons 5-1
5.1.3 List of Preparers 5-1
5.1.4 Subconsultants 5-1
5.2 Significant and Unavoidable Environmental Effects 5-2
5.3 Growth Inducement 5-1
5.3.1 Growth Inducement Potential 5-1
6 Mitigation Monitoring and Reporting Program 6-1
Appendix A. NOP A-1
Appendix B. Site Plan Review Comments B-1
Appendix C. Air Quality and Greenhouse Gas Impact Assessment C-1
Appendix D. Biological Evaluation D-1
Appendix E. Jurisdictional Delineation E-1
Appendix F. Valley Oak Memo F-1
Appendix G. Cultural Resources Information G-1
Appendix H. Historical Study H-1
Appendix I. Paleontological Technical Memorandum I-1
Appendix J. Technicon Repo J-1
Appendix K. H&H Analysis and Grading K-1
Appendix L. Noise L-1
Appendix M. Traffic M-1

Appendix N. Vehicle Miles Traveled (VMT) Analysis N-1
Appendix O. Lighting Analysis O-1
Appendix P. Alternative Assessment P-1
Appendix Q. Early Approval MNDs Q-1
Appendix R. Tulare County Cumulative Project List R-1

List of Figures

Figure 2-1. Regional Location Map 2-4
Figure 2-2. Project Study Boundary Map 2-5
Figure 2-3. Proposed Stormwater and Recharge Basins Map 2-6
Figure 2-4. 1937 Aerial Photo of Mill Creek 2-7
Figure 2-5. Concept B1 - Project 2-8
Figure 2-6. City of Visalia General Plan Map 2-9
Figure 2-7. City of Visalia Zoning Map as of December 23, 2014 2-10
Figure 2-8. County of Tulare Zoning Map as of December 23, 2014 2-11
Figure 2-9. Construction Phasing 2-12
Figure 3-1. Villoy Avenue looking East 3-4
Figure 3-2. Road 152 looking West 3-4
Figure 3-3. Road 152 looking Southwest 3-5
Figure 3-4. Road 152 at Packwood Creek 3-5
Figure 3-5. Road 152 at Packwood Creek 3-6
Figure 3-6. Road 152 at Oaks Ditch 3-6
Figure 3-7. Road 152 at Oaks Ditch 3-7
Figure 3-8. Road 152 at Mill Creek 3-7
Figure 3-9. Road 152 at Mill Creek 3-8
Figure 3-10. Road 152 north of Mill Creek looking West 3-8
Figure 3-11. Avenue 216 looking south along Tower Road 3-9
Figure 3-12. Villoy Avenue at Powerline Easement looking South 3-9
Figure 3-13. Villoy Avenue looking North at Powerline Easement 3-10
Figure 3-14. Project Light Glare Analysis 3-12
Figure 3-15. Farmland Designation Map 3-15
Figure 3-16. FEMA Flood Zones 3-104
Figure 3-17. Mineral Resource Zone Designation 3-112
Figure 3-18. Sensitive Receiver Boundary vs. On-Site Noise Sources 3-124

Figure 3-19. Sound Wall Location 3-125
Figure 3-20. Intersections and Road Segments Studied 3-149
Figure 3-21. Project Peak Hour Trip Distribution without Tower Street Interchange 3-153
Figure 3-22. Project Peak Trip Distribution with Tower Street Interchange 3-154
Figure -1. Alternative 1 Conceptual Site Plan 4-3

List of Tables

Table ES-1. Summary of Environmental Impacts ES-4
Table 3-1. Aesthetics 3-1
Table 3-2. Environmental lighting zone 3-3
Table 3-3. Maximum values for intensity of luminaires in designated directions 3-3
Table 3-4. Agriculture and Forest Resources 3-14
Table 3-5. Air Quality 3-21
Table 3-6. Maximum Pollutant Level Proximate to Project 3-23
Table 3-7. Screening Levels for Potential Odor Sources 3-29
Table 3-8. Summary of Ambient Air Quality Standards 3-34
Table 3-9. SJVAPCD Thresholds of Significance 3-37
Table 3-10. Maximum Unmitigated Project Construction Related Emissions 3-40
Table 3-11. Maximum Unmitigated Project Operation-Related Net Emissions 3-40
Table 3-12. Biological Resources 3-43
Table 3-13. List of Special Status Plant Species that could occur in the Project Vicinity 3-51
Table 3-14. List of Special Status Animal Species that could occur in the Project Vicinity 3-52
Table 3-15. Potential Impacts to Waters of U.S. 3-58
Table 3-16. Cultural Resources 3-62
Table 3-17. Geology and Soils 3-70
Table 3-18. Greenhouse Gas Emissions 3-79
Table 3-19. Operational Greenhouse Gas Emissions 3-85
Table 3-20. Phase 1, 2, and 3 Operational Greenhouse Gas Emissions 3-85
Table 3-21. Hazards and Hazardous Materials 3-87
Table 3-22. Hydrology and Water Quality 3-92
Table 3-23. Land Use and Planning 3-106
Table 3-24. Mineral Resources 3-110
Table 3-25. Noise 3-114
Table 3-26. Noise Receiver Locations 3-115

Table 3-27. Existing Traffic Noise Contours 3-115
Table 3-28. City of Visalia - Noise Level Standards 3-121
Table 3-29. Typical Construction Equipment Noise 3-122
Table 3-30. On-Site Noise Source Impacts 3-123
Table 3-31. Vibration Source Levels for Construction Equipment 3-127
Table 3-32. Population and Housing 3-130
Table 3-33. Public Services 3-132
Table 3-34. Recreation 3-142
Table 3-35. Transportation/Traffic 3-145
Table 3-36. General Plan Target LOS by Intersection 3-150
Table 3-37. Utilities and Service Systems 3-171
Table 4-1. Comparison of the Environmental Impacts of the Project and the Project Alternatives 4-14
Table 6-1. Mitigation and Monitoring Reporting Program 6-2

Acronyms and Abbreviations

AB	Assembly Bill
AE	Applied Earthworks, Inc.
AFV	Alternative Fuel Vehicles
AHERA	Asbestos Hazard Emergency Response Act
AMSL	Above Mean Sea Level
APCD	Air Pollution Control District
APE	Area of Potential Effect
APS	Alternative Planning Strategy
AQAP	Air Quality Attainment Plan
AQMD	Air Quality Management District
AQP	Air Quality Plan
ASCE	American Society of Civil Engineers
AST	Aboveground Storage Tanks
BA	Biological Assessment
BAU	Business As Usual
BE	Biological Evaluation
BGS	Below Ground Surface
BMP	Best Management Practices
BPS	Best Performance Standards
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Prevention
CalGreen	California Green Building Code
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CAFE	Corporate Average Fuel Economy
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CFR	Code of Federal Regulations

CGP ..... Construction General Permit
CGS ..... California Geological Survey
CHRIS ..... California Historical Resources Information System
CIE ..... International Commission on Illumination
City ..... City of Visalia
CLOMR ..... Conditional Letter of Map Revision
CNDDB ..... California Natural Diversity Database
CNPS ..... California Native Plant Society
CO ..... Carbon Monoxide
COS ..... College of the Sequoias
County ..... Tulare County
CPUC ..... California Public Utilities Commission
CRHR ..... California Register of Historical Resources
CVP ..... Central Valley Project
CWA ..... Clean Water Act
dB ..... decibels
DEIR ..... Draft Environmental Impact Report
DOC ..... California Department of Conservation
DOT ..... (United States) Department of Transportation
DTSC ..... California Department of Toxic Substances Control
DWR ..... California Department of Water Resources
EA ..... Environmental Assessment
EB ..... eastbound
EIR ..... Environmental Impact Report
EPA ..... Environmental Protection Agency
EPAct ..... The Energy Policy Act of 1992
EPCA ..... Energy Policy and Conservation Act
ESA ..... Endangered Species Act
ESA ..... Environmental Site Assessment
FEIR ..... Final Environmental Impact Report
FEMA ..... Federal Emergency Management Agency
FHWA ..... Federal Highway Administration
FIRM ..... Flood Insurance Rate Map
FMMP ..... Farmland Mapping and Monitoring Program
FPPA ..... Farmland Protection Policy Act

FT ..... Feet
Gal ..... Gallons
GC ..... Government Code
GHG ..... Greenhouse Gas
GIS ..... Geographic Information System
GP ..... General Plan
HAP ..... Hazardous Air Pollutants
HDM ..... Highway Design Manual
HSC ..... Health and Safety Code
Hz ..... hertz
IDDE ..... Illicit Discharge Detection And Elimination
In/sec ..... inches per second
IPaC ..... (United States Fish and Wildlife Service) Information for Planning and Consultation system
IS ..... Initial Study
IS/MND ..... Initial Study/Mitigated Negative Declaration
ISR ..... Indirect Source Review
ITE ..... Institute of Transportation Engineers
KDWCD ..... Kaweah Delta Water Conservation District
km ..... kilometers
KSJRA ..... Kaweah and St. John's Rivers Association
LAFCo ..... Local Agency Formation Commission
Ldn ..... Day/Night Average Sound Level
LF ..... linear feet
LOS ..... Level of Service
MBTA ..... Migratory Bird Treaty Act
MEIR ..... Master Environmental Impact Report
mgd ..... million gallons per day
MJLHMP ..... Multi-Jurisdiction Local Hazard Mitigation Plan
MMRP ..... Mitigation Monitoring and Reporting Program
MMT ..... Million Metric Tons
MND ..... Mitigated Negative Declaration
MPF ..... Multi-Purpose Facility
MPO ..... Metropolitan Planning Organization
MOU ..... memorandum of understanding
MRZ ..... Mineral Resource Zone

MS4 ..... (Small) Municipal Separate Storm Systems
$MTCO_2e$ ..... Metric tons of carbon dioxide equivalent
NAAQS ..... National Ambient Air Quality Standards
NAGPRA ..... Native American Graves Protection and Repatriation Act
NAHC ..... Native American Heritage Commission
ND ..... Negative Declaration
NEPA ..... National Environmental Policy Act
NFIP ..... National Flood Insurance Program
NFPA ..... National Fire Protection Association
NHPA ..... National Historic Preservation Act
NOA ..... Notice of Availability
NOI ..... Notice of Intent
NOC ..... Notice of Completion
NOP ..... Notice of Preparation
NOS ..... Notice of Scoping
NO_2 ..... nitrogen dioxide
NO_x ..... nitrogen oxides
NPDES ..... National Pollutant Discharge Elimination System
NRCS ..... Natural Resources Conservation Service
NRHP ..... National Register of Historic Places
NTU ..... Nephelometric Turbidity Unit
NWP ..... Nationwide General Permit
OHP ..... Office of Historic Preservation
O_3 ..... ozone
OPR ..... Office of Planning and Research
QP ..... Quasi-Public
Pb ..... lead
PBDB ..... Paleobiology Database
PM_{10} ..... Particulate Matter 10 Microns In Size
$PM_{2.5}$ ..... Particulate Matter 2.5 Microns In Size
ppb ..... parts per billion
ppm ..... parts per million
PPV ..... Peak Particle Velocity
PRC ..... Public Resources Code
PRD ..... Permit Registration Documents

Project ..... East Side Regional Park & Groundwater Recharge Project
RHNA ..... Regional Housing Needs Allocation
ROG ..... Reactive Organic Gases
RTP ..... Regional Transportation Plan
RWQCB ..... Regional Water Quality Control Board
SB ..... Senate Bill
SCAQMD ..... South Coast Air Quality Management District
SCE ..... Southern California Edison Company
SCH ..... State Clearinghouse
SCS ..... Sustainable Communities Strategy
SDC ..... Seismic Design Category
SGMA ..... Sustainasble Groundwater Management Act
SHPO ..... State Historic Preservation Officer
SIP ..... State Implementation Plan
SJVAB ..... San Joaquin Valley Air Basin
SJVAPCD ..... San Joaquin Valley Air Pollution Control District
SJVCEO ..... San Joaquin Valley Clean Energy Organization
SLAMS ..... State and Local Air Monitoring Stations
SMARA ..... Surface Mining and Reclamation Act
SOC ..... Statement of Overriding Considerations
SoCalGas ..... Southern California Gas Company
SO_2 ..... sulfur dioxide
SO_x ..... sulfur oxide
SPL ..... Sound Pressure Level
SR ..... State Route
SSJVIC ..... Southern San Joaquin Valley Information Center
SWANCC ..... Solid Waste Agency of Northern Cook County
SWMP ..... Storm Water Master Plan
SWPPP ..... Storm Water Pollution Prevention Plan
SWRCB ..... State Water Resources Control Board
TAC ..... Toxic Air Contaminants
TCAG ..... Tulare County Association of Governments
TCEHSD ..... Tulare County Environmental Health Services Division
TCR ..... Transportation Concept Reports
TID ..... Tulare Irrigation District

TIP ..... Transportation Improvement Program
TIS ..... Traffic Impact Study
UCMP ..... University of California Museum of Paleontology
USACE ..... United States Army Corps of Engineers
USBR ..... United States Bureau of Reclamation
USDA ..... United States Department of Agriculture
USFWS ..... United States Fish and Wildlife Service
UST ..... Underground Storage Tanks
UWMP ..... Urban Water Management Plan
VdB ..... vibration velocity
VECC ..... Visalia Emergency Communication Center
VFD ..... Visalia Fire Department
VMT ..... Vehicle Miles Traveled
VPD ..... Visalia Police Department
VRPA ..... VRPA Technologies, Inc.
VUSD ..... Visalia Unified School District
µg/m^3 ..... micrograms per cubic meter
USPS ..... United States Postal Service
WB ..... westbound
WCP ..... Water Conservation Plant
WDR ..... Waste Discharge Requirements
WEAP ..... Worker Environmental Awareness Program
WOTUS ..... Waters of the United States

Executive Summary

ES.1 Introduction

The City of Visalia (City) has prepared this Draft Environmental Impact Report (DEIR) for the proposed East Side Regional Park & Groundwater Recharge Project (Project) in compliance with the California Environmental Quality Act (CEQA).

ES.2 Objectives for the Project

- Establish a groundwater recharge facility that will optimally capture east-to-west flowing surface water from waterways up-gradient of the City for longer-term storage and replenishment of declining groundwater reserves, thereby preserving a more sustainable supply of groundwater for long-term potable water use by the City;
- Facilitate a water exchange between the City and Tulare Irrigation District (TID), by exchanging imported Central Valley Project (CVP) surface water supplies into the Kaweah River up-gradient of the City for tertiary-treated recycled water from the City's recently upgraded Water Conservation Plant located down-gradient of the City;
- Utilize the groundwater recharge facility for storm-water layoff capacity on an as-needed basis to capture east-to-west flowing stormwater from Mill Creek up-gradient of the City to reduce potential flooding along Mill Creek as it passes through the City;
- Complete a fourth city-wide, regional scale recreational facility, this one located in the eastern quadrant of the City, consistent with the 2030 General Plan and meeting the goal for park space within a ¼ mile walking radius of adjacent residential neighborhoods for that quadrant.
- Restore Mill Creek to a more historical alignment and riparian character.

ES.3 Project and Alternatives Summary

The Project consists of the construction and operation of an approximately 248-acre regional park with groundwater recharge facilities in the northeastern area of the City. The total Project area including planned street improvements spans approximately 286 acres. The Project will include Tower Street as a new arterial roadway, improvements to Houston Avenue and Road 152, an amendment to the City General Plan to change the planned land use of the Project Site with concurrent rezoning, and the annexation of a portion of the land from the County of Tulare (County).

Alternatives Considered but Rejected include many of the same components of the Project. The Tower Street extension, Houston Avenue and Road 152 improvements, and General Plan, zoning changes, and annexation are all contained in the rejected alternatives. The two alternatives differ from the preferred alternative primarily regarding configuration of the regional park facilities and the presence or absence of sports lighting.

This DEIR also considers the No Project Alternative, under which the land would retain its current land use and zoning, no portion will be annexed from the County, Tower Street will not be built, Houston Avenue and Road 152 improvements will not occur, and the regional park and groundwater recharge basins will not be constructed.

ES.4 Public Involvement Process

The development of the DEIR is designed to involve the public in the decision-making process. The CEQA process requires open discussion to determine the scope of a proposed Project and environmental topics of potential concern. The following sections identify the public processes that have been undertaken for the Project.

ES.4.1 Notice of Preparation of the Draft EIR

The City provided a Notice of Preparation (NOP) comment period for a duration of 30 days beginning on December 23, 2014 and ending on January 22, 2015 (**Appendix A**). This NOP was combined with a Notice of Scoping (NOS). The NOP/NOS had multiple purposes: to inform public agencies and the general public of the East Side Regional Park & Groundwater Recharge Project scoping process; to solicit comments to assist the City in determining environmental impacts relating to the proposed Alternatives; and to identify potential feasible and reasonable mitigation for such impacts that should be considered in this EIR. The NOP/NOS was sent via United States Postal Service (USPS) mail to a number of local, State, and federal agencies; to interest groups; and to owners and residents of property within 300 feet of the Project. The NOP/NOS was filed with the State Clearinghouse (SCH) on December 23, 2014 and was assigned SCH Number 2014121076. The NOP/NOS was also published in the Visalia Times-Delta on December 23, 2014.

ES.4.2 Notice of Completion of the Draft EIR and Public Review Period

Following completion of the DEIR, a Notice of Completion (NOC) for the DEIR was filed with the SCH and the Tulare County Clerk's Office and was mailed to interested public agencies and individuals on January 19, 2023 to initiate a 45-day DEIR public and State review period. The review period runs from January 19, 2023 through March 6, 2023. Comments should be submitted to the City prior to the end of the comment period and should be in writing if possible. Comments should be directed to:

City of Visalia
Attn: Rebecca Keenan
315 E. Acequia Avenue
Visalia, CA 93291
Email: Rebecca.Keenan@visalia.city

Additional copies of this DEIR are available for review for the following locations:

City of Visalia website at
http://www.visalia.city/depts/community_development/planning/ceqa_environmental_review.asp

Visalia Branch Library
200 W. Oak Avenue
Visalia, CA 93291
(559) 713-2700

ES.5 Summary of Impacts

This DEIR has identified potentially significant adverse environmental impacts requiring mitigation measures in the areas of Biological Resources, Cultural Resources, Noise and Vibration, and Traffic and Transportation. For all other environmental topics, either no impacts were identified, or impacts were determined to be less than significant. **Table ES-1** below provides a summary of the Project's potential environmental effects, each impact's level of potential significance, potentially significant adverse impacts, and mitigation measures to avoid or reduce the impact to a less than significant level or to the greatest degree feasible. After mitigation measures

are identified, the DEIR indicates the level of impact that would remain following incorporation of mitigation. The identified levels of significance assume implementation of all permit and approval requirements of federal, State, and local law and regulations applicable to the Project, standard conditions of approval, and construction best management practices.

Table ES 1. Summary of Environmental Impacts

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Aesthetics			
Impact I-a. The removal of the pecan and walnut orchards would open additional viewsheds from the west, allowing for increased views of the Sierra Nevada mountains. Although the Project would constitute a substantial change of the existing scenic vista, it would not do so in a detrimental way.	Less than Significant Impact	None	Less than Significant Impact
Impact I-b. State Route (SR) 198, which abuts the Project site to the south, is eligible to be listed as a State Scenic Highway but is not officially designated. The proposed Project design emphasizes the importance of providing attractive facilities, such as the re-channelization of Mill Creek to a meandering stream and the integration of recharge basins as attractive park features.	No Impact	None	No Impact
Impact I-c. The aesthetics of the park design will not only improve the visual character, but will also give the public access to enjoy features that are not currently visible or accessible. Therefore, the Project would serve to enhance the aesthetic character of the site rather than degrade it.	Less than Significant Impact	None	Less than Significant Impact
Impact I-d. Skyglow is artificial lighting from urbanized uses that alters the rural landscape and, in sufficient quantity, lights up the nighttime sky, thus reducing the darkness of the night sky and the visibility of the stars. Development of the Project would include the addition of new lighting for security purposes as well as to illuminate the facility for nighttime uses or activities over several hundred acres. To minimize lighting effects, the Project would comply with Section 17.30.015.H of the Visalia Zoning Ordinance which prohibits on-site lighting from directly or indirectly illuminating adjacent properties or public rights-of-way. The City's existing code requirements and policies would minimize impacts for potential Project lighting and glare impacts.	Less than Significant Impact	None	Less than Significant
Agricultural and Forestry Resources			
Impact II-a. The City foresaw the necessary conversion of farmland when adopting the 2030 General Plan Update. The EIR prepared in conjunction with the General Plan Update concluded that there would be significant and unavoidable impacts concerning the conversion of farmland. In certifying the EIR, the City Council adopted Resolution No. 2014-37, which contained a Statement of Overriding Considerations declaring that	Potentially Significant Impact	None feasible	Significant and Unavoidable

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
the significant loss of agriculture was outweighed by the benefits that would result from its conversion, and that there were no feasible mitigation measures that could reduce the impact to a less than significant level. The General Plan designates narrow strips (i.e., buffers) that parallel and abut Mill Creek and Packwood Creek as Conservation; however, the overall Project site is designated as Parks/Recreation. Development of the site for recreational and other uses was addressed by the General Plan and the associated EIR and determined to be significant and unavoidable and a SOC was adopted, no further analysis is required (Guidelines Section 15152(d)(1)).			
Impact II-b. The Project proposes to amend the City's General Plan to reflect the entirety of the Project site as Parks/Recreation, with a corresponding change of zoning to Quasi-Public (QP).	No Impact	None	No Impact
Impact II-c. The Project would not conflict with zoning for, or cause rezoning of, forest land or timberland. No designated forest land or timberland is present at the Project Site.	No Impact	None	No Impact
Impact II-d. The Project will not result in the loss of forest land or conversion of forest land to non-forest use, given that no designated forest land or timberland is present at the site.	No Impact	None	No Impact
Impact II-e. The Project does not involve any other components beyond those previously discussed under Impact II-a which would result in the conversion of farmland to non-agricultural use.	Less than Significant Impact	None	Less than Significant Impact
Air Quality			
Impact III-a. The Project would be consistent with the currently adopted General Plan for the City and is therefore consistent with the population growth and vehicle miles traveled (VMT) applied in the plan. Therefore, the Project would be consistent with the growth assumptions used in the applicable Air Quality Plans (AQPs). As a result, the Project will not conflict with or obstruct implementation of any AQPs.	No Impact	None	No Impact
Impact III-b. The analysis of construction impacts assumes that Phases 1, 2, and 3 of the Project will be constructed independently of each other and would not overlap. The annual emissions from the construction phase of Phase 1, 2, and 3 of the Project would be less than the applicable San Joaquin Valley Air Pollution Control District (SJVAPCD) emission thresholds for criteria pollutants as shown in Table 3-10. The construction emissions are therefore considered less than significant with the	Less than Significant Impact	None	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
compliance to the SJVAPCD applicable Regulation VIII control measures, which are provided below. If Phase 1, 2, or 3 of the Project is constructed simultaneously with another phase, the SJVAPCD threshold for Nitrogen Oxides (NOx) emissions would be exceeded. Long-Term emissions from the Project are generated primarily by mobile source (vehicle) emissions from the Project site and area sources such as lawn maintenance equipment. Emissions from long-term operations generally represent Projects most substantial air quality impact. Table 3-11 delineates operational emissions by phase. Appendix A contains Tables 12, 13, 14, 15, and 16 summarizing the Projects operational impacts by pollutant. Results show that Project operational emissions would not exceed applicable emission thresholds.			
Impact III-c. The Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.	Less than Significant Impact	None	Less than Significant Impact
Impact III-d. An evaluation of nearby land uses completed by VRPA Technologies, Inc.(VRPA) showed that the Project will not place sensitive receptors in the vicinity of existing toxic sources. Since the Project is not located within the recommended buffer distances associated with the sources found in Appendix A-Table 4, the Project would not expose sensitive receptors to substantial pollutant concentrations.	No Impact	None	No Impact
Impact III-e. The Project would not generate odorous emissions but would attract people to its site for recreational activities. It should be noted that the Double D Dairy, LLC is located approximately 0.7 miles northeast of the Project site, which is less than the one (1) mile screening distance. Given the size of the dairy, it is not anticipated that people attracted to the Project would be impacted by odors from Double D Dairy, LLC.	Less than Significant Impact	None	Less than Significant Impact
Biological Resources			
Impact IV-a. The California Natural Diversity Data Base (CDFW 2016d) was queried for special status species occurrences in the nine USGS 7.5-minute quadrangles containing and immediately surrounding the Project Site (*Exeter, Visalia, Monson, Ivanhoe, Woodlake, Rocky Hill, Lindsay, Cairns Corner,* and *Tulare*). An official species list was obtained using the USFWS Information for Planning and Conservation (IPaC) system for federally listed species with the potential to be affected by the Project (USFWS 2016).	Potentially Significant Impact	Bio 1-a, 1-b, 1-c, Bio 2-a, 2-b, 2-c, Bio 3-a, 3-b, Bio 4-a, 4-b, 4-c, Bio 5-a, 5-b, 5-c, 5-d	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Special status species occur within 3.1 miles (5 kilometers) of the Project site and may be impacted.			
Impact IV-b. Natural communities of special concern are limited to sporadic riparian habitat associated within Packwood Creek and Mill Creek. The value of this riparian habitat as a natural community of special concern has been diminished due to the fragmented nature of the woodland and close proximity of urban and suburban developments. Orchard, vineyard, ruderal, irrigation ditches, and agricultural basins are regionally abundant and/or a result of human manipulation and would not be considered natural communities of special concern. Because riparian habitats on site are extremely marginal and fragmented and other habitats are not considered sensitive (with the exception of jurisdictional waters), future Project construction would have a less than significant impact on these habitats.	Less than Significant Impact	None	Less than Significant Impact
Impact IV-c. The Project would result in potentially significant impacts to potential jurisdictional waters. The anticipated level and duration of impact would vary depending on the phasing and ultimate buildout of the project. Very minor direct, permanent impacts are anticipated with the initial phase of the project, which would entail tying into Mill Creek Ditch and Packwood Creek for the installation of the stormwater basins. During this initial phase, it is anticipated that a few hundred square feet of potential jurisdictional waters would be affected from installation of control structures to divert water from Mill and Packwood Creeks into the basins under gravity flow at specific locations. Any fill, placement of control structures, placement of rip-rap or other permanent erosion control measures within jurisdictional waters would be considered direct, permanent impact. Additionally, sedimentation and transport of polluted runoff into seasonal drainages has the potential to occur as a result of Project activities.	Potentially Significant Impact	Bio 6, Bio-7-a, 7-b, 7-c, 7-d, Bio-8, Bio 9	Less than Significant Impact
Impact IV-d. The site does not contain important movement corridors for native wildlife. Furthermore, the site would function in much the same manner as it does now, after the Project is complete. Birds using the Pacific flyway will continue to do so following Project development.	Less than Significant Impact	None	Less than Significant Impact
Impact IV-e. With the exception of potential removal of valley oaks on site, the Project appears to be in compliance with all other provisions of the County of Tulare General Plan polices. No known Habitat Conservation Plans are in effect for the area.	Potentially Significant Impact	Bio-10	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Impact IV-f. Special status animal species would use the site for foraging only due to the marginal and fragmented habitats. Because riparian habitat on site is extremely marginal and fragmented and other habitats are not considered sensitive (with the exception of jurisdictional waters) there would be a less than significant impact.	Less than Significant Impact	None	Less than Significant Impact
Cultural Resources			
Impact V-a. The Cultural Resources Inventory conducted by Applied Earthworks (AE) identified five potential historical resources within the proposed Project study area. Two of these resources are historic bridges which have been designated as ineligible for the National Register of Historic Places (NRHP); these bridges have not been evaluated for the California Register of Historical Resources (CRHR), but the report found in **Appendix G** concluded that neither bridge appears to exhibit any characteristics that would make it significant at a local or state or federal level.	Potentially Significant Impact	CR-1	Less than Significant Impact
Impact V-b. Refer to Impact V-a.	Potentially Significant Impact	CR-1	Less than Significant Impact
Impact V-c. The Paleontological Technical Memorandum provided by AE determined that the Project area has a Low to High Potential for paleontological resources dependent on depth of ground disturbance. The Cultural Resources Inventory conducted by AE did not identify any unique geologic features within the Project area. Project construction would not be expected to disturb any previously undisturbed or unknown paleontological resources or any unique geologic features.	Potentially Significant Impact	CR-2, CR-3	Less than Significant Impact
Impact V-d. Although there is no indication that the Project would result in the disturbance of any human remains, in the event that human remains are encountered the following mitigation measure shall be implemented.	Potentially Significant Impact	CR-4	Less than Significant Impact
Geology and Soils			
Impact VI-a-i. There are no known active earthquake faults in the Visalia area; therefore, the Project Site does not fall within or adjacent to a Fault-Rupture Hazard Zone.	Less than Significant Impact	None	Less than Significant Impact
Impact VI-a-ii. All proposed structures must be designed to comply with the California Building Code (CBC). The intent of the CBC is to provide minimum standards to safeguard against major failures and loss of life by providing for structures that will: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage; and 3) resist major earthquakes without collapse. The CBC bases	Less than Significant Impact	None	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
seismic design on minimum lateral seismic forces ("ground shaking"), and operates on the principal that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. Compliance with CBC would reduce impacts to less than significant.			
Impact VI-a-iii. Geotechnical investigations conducted at the Project Site by Technicon Engineering Services, Inc. in 2014 and 2015 indicated that groundwater at the Project site was at a depth greater than 70 feet below ground surface (bgs) and that generally subsurface soils had a density greater than what is typical for significant liquefaction potential. The potential for liquefaction at the Project site is considered to be low due to the absence of near-surface groundwater and the generally dense cohesive nature of the subsurface materials.	Less than Significant Impact	None	Less than Significant
Impact VI-a-iv. The Project site is not in an area susceptible to slope failure or landslides.	No Impact	None	None
Impact VI-b. Surface soils at the Project site have been mapped as having K factors of 0.15 to 0.24, which are considered low to moderate for soil erosion susceptibility. This combined with the generally flat terrain of the Project setting indicates that potential for substantial soil erosion or loss of topsoil is less than significant. Additionally, soil conservation would be addressed by the City's site review process and grading plan approvals.	Less than Significant Impact	None	Less than Significant Impact
Impact VI-c. As the Project is located on the Valley floor, no geologic landforms exist on or near the site that would result in a landslide event. Excavation, grading, and fill operations associated with construction could alter existing slope profiles making them unstable as a result of over-excavation of slope material, steepening of the slope, or increased loading. However, destabilization of natural or constructed slopes is unlikely to occur as surface topography at the project site is relatively flat. The Project is required to implement erosion prevention measures as part of its Stormwater Pollution Prevention Plan (SWPPP). Additionally, standard engineering design features and construction procedures would be implemented to maintain stable slopes and excavations during construction.	Less than Significant Impact	None	Less than Significant Impact
Impact VI-d. Surface soils at the Project are identified as Nord fine sandy loam and Grangeville sandy loam. Both the Grangeville sandy loam and Nord fine sandy loam soil types are characterized as having low shrink-swell potential. Additionally, based	No Impact	None	No Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
on information presented in the City 2030 General Plan Update EIR, there are no expansive soils located at the Project site.			
Impact VI-e. Soil permeability is a consideration for projects that require septic system installation. The Project would tie into the City sewer and Cal Water services. The City has determined that capacity exists to serve the Project. As planned, the Project would not involve the installation of a septic tank or an alternative wastewater disposal system.	No Impact	None	No Impact
Greenhouse Gas Emissions			
Impact VII-a. Results of the analysis show that Greenhouse Gas (GHG) emissions in the year 2020 are 2,187.47 $MTCO_2eq$./year, which is below a threshold of 7,000 $MTCO_2eq$./year for GHG emissions.	Less than Significant Impact	None	Less than Significant Impact
Impact VII-b. The Project incorporates various best performance standards (BPS) including recreational multi-use trails with fitness equipment that encourage biking, jogging, and walking and provide neighboring residential neighborhoods with direct access to its facilities. The types of facilities incorporated into the Project coincide with the pedestrian infrastructure-based mitigation measures included in the SJVAPCDs Mitigation Measures document. Those measures include providing pedestrian enhancing infrastructure that includes sidewalks and pedestrian paths and direct pedestrian connections. The Project incorporates the following identified existing and proposed community measures assisting the City achieve its 2020 15% and 2030 30% reduction goals. Expansion of bicycle paths, lanes, and trails: Based on the assessment above, the Project will further the achievement of the City's GHG reduction goals and will not conflict with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of GHG.	Less than Significant Impact	None	Less than Significant Impact
Hazards and Hazardous Materials			
Impact VIII-a and b. Construction of the Project components will necessitate the transport and use of small amounts of hazardous materials, such as gasoline, diesel, and oil. These materials would be used in excavation equipment, generators, and other typical construction equipment and would be contained in vessels designed for safe storage. Although appropriate handling and disposal practices would result in low potential for accidental release of hazardous materials during the construction phases,	Less than Significant Impact	None	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
there is the potential for small leaks or spills. Standard construction and operational SWPPP Best Management Practices (BMPs), including the installation of regulated spill containment at each tank, will minimize the potential for the release of construction-related fuels and other hazardous materials. These BMPs will also help control storm water contamination from spills or leaks, control the amount of runoff from the site, and require proper disposal or recycling of hazardous materials.			
Impact VIII c. The Project is located approximately 0.5 mile southeast of Golden West High School. There are no schools either existing or proposed within a one-quarter mile radius.	No Impact	None	No Impact
Impact VIII d. The Project is not located on any designated hazardous materials site; therefore, no significant hazards would be created.	No Impact	None	No Impact
Impact VIII e. The Project is not located within the safety zones or airport influence areas of any public or public use airport, no safety hazards are present.	No Impact	None	No Impact
Impact VIII f. The Project is not located within the vicinity of a private airstrip; therefore, no safety hazards would be posed.	No Impact	None	No Impact
Impact VIII g. The Project does not currently contain any public accessed routes that would be needed for an emergency response or emergency evacuation. Completion of the Project would actually increase emergency accessibility via construction of Tower Street as a new arterial roadway, which would include new local street connections to the existing stub-streets in the residential subdivisions to the west of Project. The Project would also provide three points of ingress/egress from the site.	Less than Significant Impact	None	Less than Significant Impact
Impact VIII h. The Project is located in an area designated as “Unzoned” by Cal Fire; therefore, the area is not subject to significant risk involving wildland fire. Further, the Project does not involve residential housing.	No Impact	None	No Impact
Hydrology and Water Quality			
Impact IX-a. Implementation of the Project could result in violations of water quality standards or waste discharge requirements as a result of proposed changes in existing drainage patterns, both in the short-term due to erosion and sedimentation during construction activities and in the long term based upon necessary recontouring of the site to establish recharge basins, external and internal roadways and parking areas and other sports fields and activity areas. Construction activities undertaken to implement subsequent development projects associated with build-out of the Project	Less than Significant Impact	None	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
would include excavation, soil stockpiling, boring, and/or grading activities that strip existing vegetation. Soil erosion is probable during construction which may result in water quality impairments if it is not sufficiently retained from reaching receiving waters. Water quality impairments may include turbidity, increased algal growth, oxygen depletion, or sediment buildup, thereby degrading aquatic habitats. Sediment from Project-induced erosion could also ultimately accumulate in downstream drainage facilities and interfere with stream flow, thereby aggravating downstream flooding conditions. Since the Project would exceed the 1-acre disturbed area threshold, Regional Water Quality Control Board (RWQCB) will require a SWPPP. The SWPPP would include the best management erosion control measures. In addition, the Project includes facilities and features designed to capture and retain all run-off that will be generated by site development on-site for infiltration or controlled release to the City's storm drain collection system.			
Impact IX-b. When available, agreements between the City and TID will allow for the Project to take an average of approximately 5,500 AF per year. Based on the geotechnical investigation prepared by Technicon, infiltration rates based on a double ring infiltration test show a range between 5 and 129 gallons (gal)/square-feet (sf)/day which is the equivalent of 0.3 cubic-feet per second (cfs)/acre to 8.7 cfs/acre. With the 129 gal/sf/day outlier removed, the average is more in the range of 21 gal/sf/day, or approximately 1.4 cfs/acre. This rate will vary depending on location and is expected to slow down with time after the basins have had time to fill. Given that the Project will contribute to improve groundwater supplies and lead to a net increase in aquifer volume, there will be no negative effects.	Less than Significant Impact	None	Less than Significant Impact
Impact IX-c. Mill Creek is planned to be re-aligned to accommodate park amenities while maintaining the creeks current capacity. The channel boundaries, bed surface, irregularities, obstructions, vegetation and channel meandering are to be considered in hydraulic computations to allow the creek to convey the current capacity without restriction. The restoration of Mill Creek to more closely resemble the riparian corridor that existed in the 1937 photo, shown in Figure 2-4 , could potentially lead to its utilization as habitat by a number of bird and amphibian species. This would constitute a beneficial change to the environmental baseline.	Less than Significant Impact	None	Less than Significant

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
As part of the Project, an evaluation of the floodway status of all the channels must be made. If the channels are not designated floodways on the local Flood Insurance Rate Maps (FIRMs), no Federal Emergency Management Act (FEMA) applications would be required. If, however, any of them are designated as floodways by FEMA (not as 100-year Special Flood Hazard Areas) then work with FEMA to authorize changes in the floodway would be required. This would take the form of a flood study demonstrating that the proposed changes will not result in an increase in flood surface elevations alongside of, upstream of or downstream of the Project. The City would then apply for a Conditional Letter of Map Revision (CLOMR) from FEMA. Once that is approved, the work can be done. At that point, as-built plans would be submitted to FEMA demonstrating that the work conforms to the approved CLOMR and a Letter of Map Revision would be issued. A Lake or Streambed Alteration Agreement would likely be required with the California Department of Fish and Wildlife due to the work within and adjacent to Packwood Creek and Mill Creek. Because there will be work performed within waters of the United States (Packwood Creek and Mill Creek) a Clean Water Act Section 404 Nationwide Permit and 401 Certification would likely be required with the United States Army Corps of Engineers and RWQCB, respectively. The Mill Creek channel restoration design aims at reconstructing the creek channel to a stable geometric configuration that is self-sustaining and in balance with imposed flow and sediment regimes and the character of the catchment landscape. This design would minimization future erosion or siltation. Any impacts would be less than significant.			
Impact IX-d. As part of the Project, Mill Creek would be realigned, returning it to a more natural meandering channel alignment and riparian character that more closely resembles how it existed in 1937. The restored Mill Creek would potentially be utilized as habitat by a number of bird and amphibian species, and would be a benefit to the environment. This realignment would not change the creeks flow, or capacity. The site storm water runoff would be accommodated by strategically located drainage facilities that would direct storm water runoff from the Project into the basins. The storm water	Less than Significant Impact	None	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
runoff basins are located along the west side adjacent to Tower Street and along the east side adjacent to Road 152. Each basin would include a low flow channel that allows for small volumes of water to be conveyed through the basins without filling up the entire basin and also allows more flexibility in gravity flowing water from the ditches or creeks. In an effort to minimize depth and maintain bi-directional flow, the channels are only one to two feet in depth and approximately 20 feet (ft) wide. Therefore, the Project would alter the course of a stream, it would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off of the Project site.			
Impact IX-e and f. Analysis of future Tower Street has been limited to south of the future Mineral King/Tower Street intersection, approximately 1300 feet north of the centerline intersection of SR 198 and Tower Street. At Race Avenue, preliminary plans show water from the west half of Tower Street would be routed into the subdivision to the west. In all other cases, Tower Street runoff is captured and routed to depressed basins at McKinley Avenue or to on-site underground and depressed storage facilities. On-site, the park site was divided into three areas to determine capacity needs. The park area south of Mill Creek is one separate drainage area and the area north of Mill Creek is divided into to two drainage areas generally split on a north south line through the softball complex that reaches the center northern most baseball complex then turns east to the west edge of Basins A-B-C. Due to the proposed top of bank elevations for the recharge basins and the low flow line elevations of drop inlets it is not practical to gravity flow storm water runoff into the basins. If the City prefers, a pump system can be designed to take water generated from the site and from Tower Street that would be deposited into one or more of the proposed recharge basins. Capacity of the Dog Park Basin and the McKinley Avenue Basins are based on the City's Storm Water Master Plan (SWMP) retention design with gentle side slopes (generally 6:1 (H:V)) and a foot of freeboard. The basins capacities can be increased by deepening the basins. Criteria for preliminary sizing the basins are based on the City's SWMP using Table 3-6, Rational Method Runoff Coefficients and Design Criteria for Storm-water Basins. A Storage Volume value of 0.191 for Residential – High Density Land Use was selected based on the combination of open space and	Less than Significant Impact	None	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
developed space including roads and parking lots shown on the master plan park layout. Capacity of the underground basins are calculated from Storm-Tech MC-3500 Chambers and based on a 9-inch stone foundation depth. Each of the proposed parking lots would contain a system of chambers to allow for efficient routing of storm lines. If needed, it is possible to locate the chambers under designed play areas if the parking lots do not develop as proposed on the Park Master Plan.			
Impact IX-g and h. The Project area is covered by both FEMA Flood Zone AE and X (Panel 06107C0954). For Zone AE, elevations have been established that would need to be respected when designing buildings, support structures, and critical equipment. In general, for the proposed site the AE elevations range from a low of 352 ft on the west side to a high of 355 ft on the east side. Additionally, the park master plan areas that are not scheduled for recreation facilities/uses are primarily located along Tower Street and are scheduled to be raised mounds. No housing is proposed as part of this Project and no structures would impede or redirect flood flows.	Less than Significant Impact	None	Less than Significant Impact
Impact IX-i. In the context of the Project, the significant and unavoidable risk identified in the General Plan Update EIR can be considered a baseline condition. The risks of dam failure as a result of a seismic event are preexisting and will not be increased in any way due to Project implementation. Conversely, the basins would serve to minimally reduce risk of flooding due to dam failure, as they could capture a portion of the flood flows. Given this slight beneficial impact, and that flood risk due to dam failure is a baseline environmental condition, impacts would be less than significant.	Less than Significant Impact	None	Less than Significant Impact
Impact IX-j. The Project area is located sufficiently inland to be out of what would be considered a potential hazard area for seiches, tsunamis, and sea level rise. In addition, the location of the park area makes the potential for mudflows also remote.	No Impact	None	No Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Land Use and Planning			
Impact X-a. The Project is located on the far eastern edge of the City, at the outer boundary of existing development and therefore would not divide the community.	No Impact	None	No Impact
Impact X-b. Prior to pursuing development of the Project, the City will need to obtain approval from the Local Agency Formation Commission (LAFCo) of the approximately 129 acres lying north of Mill Creek to Houston Avenue. As part of the annexation, the City would apply to pre-zone the annexation area to the QP zone under the City's zoning ordinance to facilitate the Project. Approval by LAFCo of the annexation and pre-zoning will bring the property into the city limits and nullify the County's AE-20 (Exclusive Agricultural – 20-Acre Minimum) zoning. Upon approval of the annexation, the City would take an action to amend the official zone map consistent with the pre-zoning. The new QP zone will take effect 30-days after the City action. In addition to the annexation and pre-zoning, the City would need to perfect a General Plan Amendment for approximately 42 acres of the annexation area currently designated for Low, Medium, and High Density Residential located in the northern third of the Project site. The change in land use would affect less than 0.4 percent of land within the City's Sphere of Influence planned for Residential uses. These lands would be designated for Parks/Recreation consistent with the land use designation for the portion of the Project site already within the City limits and lying south of Mill Creek. The majority of the southern two-thirds of the Project Site is located within Tier I of the City's Urban Development Boundary, while the remainder (which is planned for residential use) is within Tier III, the Urban Growth Boundary. The General Plan contains criteria to determine whether land within Tier III can be developed, however it applies only to residential, commercial, and industrial development. Therefore, once these lands are annexed into the City and designated as QP zone, the tier distinctions would no longer apply for the development of the Project.	Less than Significant Impact	None	Less than Significant Impact
Impact X-c. There are no habitat conservation plans or natural community plans in the vicinity of the Project.	No Impact	None	No Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Mineral Resources			
Impact XI-a. The easternmost portion of the Project site, lies within an MRZ-3a zone, an area of moderate potential for mineral deposits of economic value. Although the MRZ-3a zone exists within the Project boundaries, the Project would not exploit the untapped potential of the known mineral resource present. The mineral resource would not be removed from the site, but development of the site with recharge basins and predominantly open recreational areas would not result in the loss of availability of a known mineral resource through compliance with local, State, and federal legislation and permitting. The Project would not devalue the mineral resource integrity of the site or result in the removal or alteration of the known mineral resources present.	Less than Significant Impact	None	Less than Significant Impact
Impact XI-b. See discussion under Impact XI-a. Considering that the Project would not remove or significantly alter the MRZ-3a geologic reserve, the Project would result in less than significant impacts to the availability of the known mineral resource for future recovery.	Less than Significant Impact	None	Less than Significant Impact
Noise			
Impact XII-a. Implementation of the Project has the potential to result in short-term construction noise impacts to surrounding land uses due to construction activities. Construction noise represents a short-term impact on ambient noise levels. During the construction phase of any future development projects, noise from construction activities would add to the ambient noise environment in the immediate area. Noise levels on-site are anticipated to peak during games while spectators are present. Noise is generated from cheering spectators and players, as well as referee whistles. Phase 3 of the Project would impact sensitive receivers directly to the west of the Project and exceed the City's Stationary Noise Source criteria for the hourly equivalent sound level.	Potentially Significant Impact	NOI-1, NOI-2, NOI-3	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Impact XII-b. Ambient vibration levels in residential areas are typically 50 VdB, which is well below human perception. The operation of heating/air conditioning systems and slamming of doors produce typical indoor vibrations that are noticeable to humans but not considered adverse or significant. Construction activity can result in ground vibration, depending upon the types of equipment used and proximity to receptors. Operation of construction equipment causes ground vibrations, which spread through the ground and diminish in strength with distance from the source generating the vibration. Building structures that are founded on the soil in the vicinity of the construction site respond to these vibrations, with varied results. Ground vibrations as a result of typical construction activities very rarely reach vibration levels that would damage structures but can cause low rumbling sounds and detectable vibrations for buildings very close to the site. Construction activities that generally create the most severe vibrations are blasting and impact pile driving. Neither of these activities would be needed to construct the Project.	Potentially Significant Impact	NOI-4	Less than Significant Impact
Impact XII-c. VRPA Technology, Inc. Noise Study evaluated the impact of the Project to the modeled sensitive receivers evaluated in the study area. The results indicate that the changes in noise levels, as a result of the Project, are insignificant. There would be minimal changes in the traffic noise exposure levels at various setbacks of 60, 65, 70, 75, and 80 Leq(h) dBA for the major streets and roads within the study area. Stationary Noise impacts were evaluated for Phase 2 in Impact XII-a. Noise levels on-site are anticipated to peak during games while spectators are present. Noise is generated from cheering spectators and players, as well as referee whistles. Results of the analysis shows that the sensitive receptors directly to the west of the Project site would be impacted by the ball fields in a worst-case scenario that assumes games are being played on all 13 ball fields at the same time.	Potentially Significant Impact	NOI-1, NOI-2, NOI-3	Less than Significant Impact
Impact XII-d. Implementation of the Project has the potential to result in short-term noise impacts to surrounding land uses due to construction activities. Construction noise represents a short-term impact on ambient noise levels. Although most of the types of exterior construction activities associated with the general plan update would not generate continually high noise levels, occasional single-event disturbances from grading and construction activities are possible.	Less than Significant Impact	None	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
During the construction phase of any future development projects, noise from construction activities would add to the ambient noise environment in the immediate area. Activities involved in construction would generate maximum noise levels.			
Impact XII-e. The Project is not located within five miles of a public airport or public use airport. Therefore, the Project would not result in the stated impact.	No Impact	None	No Impact
Impact XII-f. The Project is not located within the vicinity of a private airstrip. Therefore, the Project would not result in the stated impact.	No Impact	None	No Impact
Population and Housing			
Impact XIII-a. Project components are intended to address and accommodate expected growth, rather than inducing it. The recreational facilities and road improvements of the Project are addressed within the City's General Plan, and are intended to accommodate the anticipated future growth of the City. The extension of roads and development of Tower Street is intended to provide access to the East Side Regional Park and to improve traffic flow. This Project would not result in an indirect induction of population growth.	No Impact	None	No Impact
Impact XIII-b. There is no housing located on the Project site, therefore implementation of the Project would not result in the displacement of any amount of existing housing.	No Impact	None	No Impact
Impact XIII-c. As stated in Impact XIII-b, there is no housing located on the site; therefore, the Project would in no way displace substantial or insubstantial numbers of people.	No Impact	None	No Impact
Public Services			
Impact XIV-a-i. The Project is within the service area of the Visalia Fire Department Station 56 (Station 56), which is located 1.2 miles southwest of the Project. The Visalia Fire Department (VFD) provides services within the city limits. Thus, after the annexation of the northern portion of the Project site into the city limits, the entire extent of the Project area would be served by VFD. According to the City's General Plan, "VFD staffs five paramedic engine companies, one truck company and Battalion Chief daily, from five fire station locations. The engines and truck are staffed with three personnel The Project site is within the VFDs target response time area.	No Impact	None	No Impact
Impact XIV-a-ii. The northern portion of the Project site is currently served by the Tulare County Sheriff. Following annexation, the Visalia Police Department (VPD) would provide service to the entire Project area. The VPDs main headquarters is located in	No Impact	None	No Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Downtown Visalia and leads two substations that engage in district-based operations. Both the main headquarters and the District 1 substation would sufficiently serve the Project area.[1]			
Impact XIV-a-iii. The Project would not include any residential development, nor would it directly or indirectly induce population growth. Project implementation would not result in an increase in students at any school.	No Impact	None	No Impact
Impact XIV-a-iv. The Project would include the conversion of agricultural and residential planned land uses to a regional park and recharge facility. Therefore, the development of this Project would not have an adverse impact on parks and recreation; rather, it would improve the City's recreational facilities and decrease dependence on existing parks.	No Impact	None	No Impact
Impact XIV-a-v. The Project would not generate, directly or indirectly, any new residences or businesses that could lead to the need for the expansion of existing public facilities or the creation of new facilities.	No Impact	None	No Impact
Recreation			
Impact XV-a. The Project would reduce the need for additional recreational facilities, would not result in residential development, and meets the expectations of the City's General Plan. Any impacts would be less than significant.	Less than Significant Impact	None	Less than Significant Impact
Impact XV-b. The physical and environmental impacts of this Project are outlined throughout this EIR. The primary source of environmental impacts, though minor, would occur during the construction phase of the Project. The potential environmental impacts would involve ground-disturbance, air pollution from ground disturbance and construction equipment, noise, hydrological, and biological impacts. All of these impacts are discussed in greater detail within their respective Impact Analysis sections.	Potentially Significant Impact	Various Mitigation Measures throughout the document.	Less than Significant Impact

[1] City of Visalia 2014. Draft Environmental Impact Report – Chapter 3.9: Settings, Impacts, and Mitigation, Public Services, Facilities and Utilities. http://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30499 Page 3.9-1 to 3.9-3. Date Accessed: 8/8/2016

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Transportation/Traffic			
Impact XVI-a. The potentially significant impacts resulting from the Project relate to the generation of unacceptable LOS at various intersections and road segments both in the near term and long term. The Project would be inconsistent with City General Plan identifies in T-P-9, considering the exceedance of levels of service. Described below are recommended improvements at study area intersections and segments for various scenarios that would in most cases mitigate the potential significant impacts to acceptable levels of service and thereby reducing the impact to less than significant. It should be noted that statements of significance for the improvements identified below are related to Project impacts.	Potentially Significant Impact	TR-1, TR-2, TR-3, TR-4, TR-5, TR-6, TR-7, TR-8, TR-9, TR-10, TR-11, TR-12, TR-13, TR-14, TR-15, TR-16, TR-17, TR-18, TR-19, TR-20, TR-21, TR-22, TR-23, TR-24, TR-25, TR-26, TR-27, TR-28, TR-29, TR-30, TR-31, TR-32	Significant and Unavoidable
Impact XVI-b. Impacts are identified in Impact XVI-a. Mitigation measures MM TR-1 through MMTR-56 would be implemented to minimize all feasibly mitigated impacts due to exceedances of level of service (LOS) standards, travel demand measures and other standards developed by the Tulare County Congestion Process Steering Committee Congestion Management Program	Potentially Significant Impact	TR-1, TR-2, TR-3, TR-4, TR-5, TR-6, TR-7, TR-8, TR-9, TR-10, TR-11, TR-12, TR-13, TR-14, TR-15, TR-16, TR-17, TR-18, TR-19, TR-20, TR-21, TR-22, TR-23, TR-24, TR-25, TR-26, TR-27, TR-28, TR-29, TR-30, TR-31, TR-32	Significant and Unavoidable
Impact XVI-c. The nearest airport of any kind is the Exeter Airport, located 7.2 miles southeast of the Project. The next nearest airport is the Visalia Municipal Airport, located approximately 7.6 miles west of the Project.	No Impact	None	No Impact
Impact XVI-d. The Project would create additional streets and new intersections. These streets and intersections are required to be constructed to Public Works Standards.	Potentially Significant	TR-1, TR-2, TR-3, TR-4, TR-5, TR-6, TR-7, TR-8, TR-9, TR-10, TR-11, TR-12, TR-13	Less than Significant

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Impact XVI-e. The project proposes multiple vehicular access points to the project location and would not create barriers to existing streets.	Potentially Significant	TR-1, TR-2, TR-3, TR-4, TR-5, TR-6, TR-7, TR-8, TR-9, TR-10, TR-11, TR-12, TR-13, TR-14, TR-15, TR-16, TR-17, TR-18, TR-19, TR-20, TR-21, TR-22, TR-23, TR-24, TR-25, TR-26, TR-27, TR-28, TR-29, TR-30, TR-31, TR-32	Less than Significant
Impact XVI-f. The Project would be providing additional trails for pedestrian and bicycle traffic and is isolated from a public transportation route. The City General Plan Circulation Element identifies in policy T-P-33 to work with transit operators to establish transit stops adjacent to regional parks. To be consistent with the City General Plan and the City General Plan Environmental Impact Report, the City would be required to work with transit operators on establishing a public transportation stop within a reasonable vicinity of the regional park.	Potentially Significant	TR-1, TR-2, TR-3, TR-4, TR-5, TR-6, TR-7, TR-8, TR-9, TR-10, TR-11, TR-12, TR-13, TR-14, TR-15, TR-16, TR-17, TR-18, TR-19, TR-20, TR-21, TR-22, TR-23, TR-24, TR-25, TR-26, TR-27, TR-28, TR-29, TR-30, TR-31, TR-32	Significant and Unavoidable
Utilities and Service Systems			
Impact XVII-a. The City Water Conservation Plant (WCP) recently underwent extensive upgrades. The WCP is located about one mile southwest of the intersection of State Highway 99 and Highway 198. Prior to the upgrades, the WCP was discharging approximately 13 million gallons per day (mgd) of effluent under Waste Discharge Requirements (WDR) from the California RWQCB, Central Valley Region to City owned holding basins and Mill Creek. The reason for the extensive upgrades to the WCP was for conversion from secondary level treatment to advanced tertiary treatment to comply with RWQCD waste discharge requirements. This resulted in the issuance of an updated WDR Order for the WCP. The tertiary treated recycled water	Less than Significant Impact	None	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
is planned for use by nearly 10,000 acres of farmland within the City and TID and for the City's Valley Oak Golf Course and Plaza Park. The design capacity and permit capacity of the recent upgrade is 22 mgd with provisions to expand to 26 mgd. These upgrades to the WCP accommodate the anticipated wastewater discharge from the full buildout of the City's recently adopted General Plan land uses and therefore, the Project would not significantly impact the existing permit issued by the RWQCB.			
Impact XVII-b. While the WCP upgrade would have the potential to cause significant environmental impacts, the City certified an environmental impact report including a SOC to allow these impacts. The Project was not the impetus requiring the expansion and is not anticipated to place any significant demand on the City's wastewater treatment facilities or Cal Water's domestic water system; therefore, impacts relating to the upgrade of the WCP are not eligible for consideration in relation to the Project.	Less than Significant Impact	None	Less than Significant Impact
Impact XVII-c. The Project would involve the realignment and other minor improvements to Mill Creek and Packwood Creek, which are identified as main drains within the City's stormwater drainage system. Project components also include the construction of groundwater recharge basins, which would serve a dual function as stormwater layoff basins, which would control and limit potential impacts from seasonal floods. These components would have the potential to cause significant environmental effects and are described and analyzed in this EIR. Other than those discussed in Chapter 3 of this document impacts would not occur as a result of the Project.	Less than Significant Impact	None	Less than Significant Impact
Impact XVII-d. The recreational facilities, including splash pads and areas that require irrigation, would require the use of water throughout construction and operation. Provided by Cal Water. The City is located in an area that is currently in conditions of groundwater overdraft, therefore water conservation is extremely important. The groundwater recharge basins, however, would ensure that the Project would have a net positive impact on water supplies given that they would also be used to receive surface waters that normally would not be recharged. The Project is designed to recharge surface water that is available from Mill Creek, Oakes Ditch and Packwood Creek. An agreement has been made with the Tulare Irrigation District for long-term exchange of water supplies. The City would deliver treated effluent to TID from its WCP on the west side of town and in exchange TID would provide a portion of its	Less than Significant Impact	None	Less than Significant Impact

Summary of Potential Impact			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Central Valley Project water supplies in certain higher flow year types marked by what is called "Uncontrolled Season" that would be available for delivery into the Project. Therefore, no net loss of water supplies would result from the Project.			
Impact XVII-e. The Project is not expected to result in a significant increase in wastewater. The recent upgrade of the City's WCP would ensure that capacity for wastewater treatment continues to exceed the growth in supply that would occur in conjunction with the City's anticipated growth.	No Impact	None	No Impact
Impact XVII-f. The Project is not anticipated to generate a large amount of solid waste. As of 2014, the landfill that would serve the Project, the Visalia Landfill, had a maximum capacity of 18,630,666 cubic yards and a remaining capacity of 16,145,591 cubic yards. The landfill is not expected to reach capacity until 2024.	No Impact	None	No Impact
Impact XVII-g. Solid waste would be collected from the proposed facilities and transported to the Visalia Disposal Site, in compliance with all federal, State, and local statutes and regulations.	No Impact	None	No Impact

1 Introduction

1.1 Purpose of the Draft Environmental Impact Report

This Draft Environmental Impact Report (DEIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the proposed East Side Regional Park & Groundwater Recharge Project (Project). This document is prepared in conformance with CEQA (California Public Resources Code Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15000, et seq.).

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

This summary is provided in accordance with the CEQA Guidelines Section 15123. As stated in CEQA Guidelines Section 15123(a), "an environmental impact report (EIR) shall contain a brief summary of the proposed actions and its [*sic*] consequences. The language of the summary should be as clear and simple as reasonably practical." As required by the Guidelines, this DEIR includes (1) a summary description of the Project; (2) a discussion of the areas of controversy associated with the project; (3) identification of the alternatives evaluated and the environmentally superior alternative; and (4) a synopsis of environmental impacts and recommended mitigation measures.

To account for the possibility that the City may seek federal grant funding or federal permits or other federal approvals to construct any portion of the Project, the technical studies evaluating Biological Resources, Potential Waters of the United States, and Cultural and Historical Resources have been completed at a level adequate for the federal lead agency to complete an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) regulations.

1.2 Content of the DEIR

The City has prepared this DEIR for the Project in compliance with CEQA. This DEIR fully evaluates the potential direct, indirect, and cumulative environmental impacts associated with the Project (as further described within) for a regional park and groundwater recharge facility, as well as a No Project Alternative.

Specific areas of analysis will include all resource categories included in Appendix G to the CEQA Guidelines (as of the release date of the Notice of Preparation/Notice of Scoping, December 23, 2014), as follows: aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas (GHG) 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, and utilities and service systems. Additionally, a consideration of cumulative impacts is included.

1.3 Organization of the DEIR

Executive Summary: Summarizes the content and determinations of this DEIR:

Chapter 1 – Introduction: Explains the purpose of an EIR, its content, and the environmental review process.

Chapter 2 –Project Description: Includes a detailed description of the Project.

Chapter 3 – Impact Analysis: Includes analysis of each of the topical areas consistent with Appendix G.

Chapter 4 – Analysis of Alternatives: Includes analysis of Alternatives 1 and 2 and the No Project Alternative.

Chapter 5 – Significant and Unavoidable Impacts: Describes any potential significant environmental impacts that cannot be fully mitigated and are therefore unavoidable and summarizes the substantial evidence contained in the DEIR that provides the economic, legal, social, technological or other benefits that would result from the Project in the event that the City chooses to adopt a Statement of Overriding Considerations on a basis that these benefits override the potentially significant and unavoidable effects that may result.

Chapter 6 – Mitigation Monitoring and Reporting Program (MMRP): In order to ensure that the mitigation measures and project revisions identified in the DEIR are implemented, the City shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. This program will summarize the significant environmental impacts and their corresponding mitigation measures, the agency or agencies responsible for carrying out the mitigation, and who determines when the mitigation has been satisfied. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity that accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

Chapter 7 – List of Preparers: Provides a list of key personnel involved in the preparation of the DEIR.

Appendices – Following the text of this DEIR, several appendices have been included as supporting or technical reference material.

1.4 Use of the DEIR

If found adequate, the DEIR will be certified as a Final Environmental Impact Report (FEIR) by the City for the purpose of disclosing potential environmental impacts resulting from the construction and operation of the Project. The FEIR will incorporate responses to all comments received on the DEIR and will also identify all mitigation measures the City is required to implement to reduce potential impacts. Additionally, the FEIR may also be used by various other public agencies when considering the issuance of their own permits for the Project. The following Responsible Agencies may utilize the FEIR in the issuance of any discretionary permits or approvals prior to construction of all or portions of the Project:

- California Department of Fish and Wildlife
- Regional Water Quality Control Board – Central Valley Region
- State Water Resources Control Board
- California Department of Transportation
- San Joaquin Valley Air Pollution Control District
- Tulare County Airport Land Use Commission
- County of Tulare

1.5 Public Involvement

The development of the EIR from draft to final is designed to involve the public and other potentially affected parties and agencies in the decision-making process. The CEQA process requires open discussion and interaction to determine the scope of a Project and environmental topics that are of potential concern. The following sections identify the public processes that have been undertaken for the Project.

1.5.1 Notice of Preparation of the DEIR

In accordance with CEQA, the City circulated an NOP of an EIR for 30 days beginning on December 23, 2014 and ending on January 22, 2015 (**Appendix A**). This NOP was combined with an NOS. The purpose of the

NOP/NOS was to inform the public agencies and the general public of the City's intention to prepare an EIR for the Project and to solicit comments to assist the City in determining environmental impacts relating to the Project and to identify potential feasible and reasonable mitigation for such impacts or alternatives that would reduce impacts that should be considered in this EIR. The NOP/NOS was sent via USPS mail to a number of local, State, and federal agencies; to interest groups; and to owners and residents of property within 300 feet of the Project. The NOP/NOS was filed with the SCH of the Governor's Office of Planning and Research on December 23, 2014. The NOP/NOS was also published in the *Visalia Times-Delta* on December 23, 2014.

Appendix A contains the NOP/NOS documents along with the mailing lists of those who were sent the NOP/NOS. This appendix includes the reviewing agency letter prepared and distributed by the SCH on December 23, 2014.

Comments received as a result of the NOP/NOS are attached as **Appendix A** hereto and helped direct the analysis presented in this EIR. Comments included discussion of the following general points:

- Concerns regarding noise generated by nighttime activities;
- A need for more group picnic areas;
- Access to Road 152;
- Odors from dog park;
- Concerns regarding width of setbacks on north and east boundaries;
- Desire for a "hands-off" habitat area;
- Desire for archery facilities;
- Concern regarding building in 100-year flood zone.
- Desire for permeable paving where possible;
- Desire for City garden bed space;
- Desire for play structures dispersed closer to soccer fields and more splash parks;
- Concerns regarding bike access;

In addition to the NOP/NOS meeting, four Community Workshops were held on February 11, February 12, March 26, and June 18, 2015. These workshops ultimately resulted in the formulation of two concepts, A1 and B1. On August 17, 2015, the City Council reviewed both concepts and selected Concept B1 as the Project to be evaluated in this EIR, described in **Chapter 2, Project Description**. Concept A1 is evaluated in **Chapter 4**, as an Alternative.

1.5.2 Notice of Availability and Distribution of the DEIR

On January 19, 2023, a Notice of Availability (NOA) was published in the *Visalia Times-Delta* and mailed to interested agencies and to individuals that had previously requested such notice in writing to initiate a 45-day DEIR public review period.

In addition to the NOA, a NOC transmittal form were received by the SCH in the Governor's Office of Planning and Research on January 19, 2023.

The DEIR is now available for review and comment by public agencies and the general public for the same 45-day duration. In order to make a well-informed decision about whether to carry out the Project, the City welcomes comments and will receive written comments between January 19, 2023 and March 6, 2023. The City must receive written comments no later than 5:00 p.m. on March 6, 2023. Any written comments should be directed to:

City of Visalia
Attn: Rebecca Keenan
315 East Acequia Avenue
Visalia, CA 93291
or

Email: Rebecca.Keenan@visalia.city

Additional copies of this DEIR are available for review at the following locations:

City of Visalia website at http://www.visalia.city/depts/community_development/planning/ceqa_environmental_review.asp

Visalia Branch Library
200 W. Oak Avenue
Visalia, CA 93291
(559) 713-2700

1.6 FEIR

Following the closure of the 45-day DEIR public review and comment period, the City will review comments received, prepare written responses, make any necessary changes to the DEIR, and prepare and publish the FEIR. The FEIR will be the document considered by the City for certification. The FEIR, pursuant to CEQA Guidelines Section 15132, will incorporate:

- The DEIR or a revision of the draft;
- Comments and recommendations received on the DEIR either verbatim or in summary;
- A list of persons, organizations, and public agencies commenting on the DEIR;
- The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and
- Any other information added by the Lead Agency.

If the City chooses to certify the FEIR and approve the Project, it will be required to adopt findings relating to significant impacts. In the event that impacts are mitigated to the greatest extent feasible but remain significant and unavoidable, the City will be required to make findings pursuant to CEQA Guidelines Section 15091 and determine that the benefits of the project outweigh the impacts through the adoption of a SOC pursuant to CEQA Guidelines Section 15093.

If the City chooses not to certify the FEIR and denies the Project, no additional CEQA review would be required.

2 Project Description

2.1 Project Location and Boundaries

The City of Visalia (City) encompasses approximately 37.94 square miles and lies within northwestern Tulare County (County) in the central San Joaquin Valley (**Figure 2-1**). The Project evaluated in this DEIR is located partially within the City and partially within the County; one of the actions necessary for Project implementation is annexation of the unincorporated areas into the City.

As shown on **Figure 2-2**, the Project area evaluated in this DEIR comprises approximately 286 acres situated in the northeast quadrant of the City, lying north of State Route (SR) 198 and east of North McAuliff Street. Approximately 130 acres of the Project site, lying north of Mill Creek and south of Houston Avenue, Assessor Parcel Numbers (APNs) 103-110-24, -25, -26, -27, -28, -29, -32, and -33, are currently situated in the County and will need to be annexed to the City. The APNs within the City limits are 103-500-001, -002, -003; 103-510-002, -003, -004, -005, -006, -007 -008, and -009. The Project Site is generally bounded as follows: on the south by the proposed realigned Mineral King Avenue; on the west by existing single-family residences and proposed Tower Street; on the east by Road 152; and on the north by Houston Avenue (called Ivanhoe Drive within Tulare County). This segment of Houston Avenue is also designated as SR 216.

2.2 Environmental Setting

The Project location is in an area that has historically been predominately agricultural. The San Joaquin Valley, like most of California, experiences a Mediterranean climate with warm, dry summers and cool, moist winters. The City experiences annual precipitation rates of approximately 10.93 inches, of which 85% falls between October and March.[2]

Surrounding. The northerly portion of the Project is located at the far easterly edge of city limits and would be annexed by the City. Land to the north, south and east within the unincorporated portion of the County are agricultural, commercial, and rural residential uses. There are also County commercial uses to the south and east of the Project, fronting Noble Avenue and Mineral King Avenue, both of which are frontage roads to SR 198. Land to the west lies within the city limits and contains urban uses – predominantly single-family residential development. There is one rural single-family parcel fronting on Mineral King Avenue directly south of the agricultural tail water/recharge basin.

Adjacent to the west of the Tower Street alignment is an existing Southern California Edison (SCE) high-voltage transmission line corridor approximately 150 feet in width. The portion of the corridor south of Mill Creek is owned in fee title by the City. The portion of the corridor north of Mill Creek is primarily owned in fee title by SCE with a small portion owned in fee title by the City. The portions not owned by SCE are subject to an easement.

The City has approved a plan for the construction of a multi-use trail called the Greenway Trail. The Greenway Trail project, once constructed, would be within the SCE power line corridor. The trail is planned to begin where Cameron Creek crosses Road 148 approximately 1.2 miles south of SR 198. The trail would extend north for 2.7 miles within the SCE power line corridor traveling along the west edge of the Project site and connecting to the existing St. John's River Trail. The St. John's River Trail lies approximately a 0.25-mile north of Houston Avenue and runs east-west along the south bank of the St. John's River. The City has received a Caltrans Active

[2] (U.S. Climate Data. 2020). https://www.usclimatedata.com/climate/visalia/california/united-states/usca1204 Accessed on August 23, 2020.

Transportation Planning Grant funding to construct the portion of the trail from Mineral King Avenue to Mill Creek. In the meantime, design and environmental clearance tasks are in progress.

Cutler Park, owned and maintained by the County, is located approximately 0.75-mile to the northeast of the Project along Ivanhoe Road/SR 216 at the St. John's River. Cutler Park is a small rural park with access to the St. John's River and offers playgrounds, grassy areas, trails, and general outdoor nature areas.

Project Site. The Project site has historically been and is currently used for agricultural purposes. There are multiple orchards in various stages, such as removal, planting, and harvesting, on the site. Two seasonal channels traverse the property: Mill Creek, and Packwood Creek. Three irrigation ditches traverse a portion of and terminate on the property or along the property boundary: Fleming Ditch, Oakes Ditch and one unnamed ditch. The unnamed ditch originates on the property as a bifurcation of Oakes Ditch (**Appendix D**). A portion of the Project site south of Packwood Creek and fronting along Mineral King Avenue is currently fallow with two depressed areas; the depressed area in the southeast corner was utilized in the past as a temporary parking lot. A portion of the Project site north of Packwood Creek and in the southwest corner contains an existing agricultural recharge basin.

2.3 Project Components

The purpose of the Project would be to co-locate city-wide/regional park amenities for both passive and active recreational uses, amongst functional groundwater recharge/storm water layoff basins. The Project would allocate approximately 148 acres park uses and approximately 104 acres for recharge/storm water facility purposes. The primary components of the Project are described in more detail below.

2.3.1 Groundwater Recharge and Storm Water Layoff Basins

The groundwater recharge/storm water layoff basins would comprise approximately 104 acres and the site storm water runoff basins would comprise approximately 3.13 acres (**Figure 2-3**). The Project integrates both types of basins into the layout of the park amenities.

The site storm water runoff would be accommodated by strategically-located drainage facilities that would direct storm water runoff from the Project into the basins. The storm water runoff basins are located along the west side adjacent to Tower Street and along the east side adjacent to Road 152.

The Project would utilize the three existing waterways flowing through the property (Mill Creek, Packwood Creek, and Oakes Ditch) for groundwater recharge and storm water layoff functions. The dual-function design would include new control structures to divert recharge and layoff waters from these waterways into the basins, move water between basins, and return water to Mill Creek or Packwood Creek as needed.

Currently, the Oakes Ditch traverses the site east to west and goes underground to a drop inlet at the west end of the Project boundary. The inlet ultimately feeds a pipeline into an existing agricultural recharge basin outside the Project. As part of the Project, Oakes Ditch would be incorporated across the site as the low flow lines of one of the recharge basins. Oakes Ditch would then terminate within the recharge basin. The drop inlet and the pipeline would be removed as part of this Project.

2.3.2 Regional Park Amenities

The regional park amenities generally span across the entire Project site. The active recreational amenities would comprise approximately 139 acres. The passive amenities would utilize approximately 130 acres, which includes the groundwater recharge and storm water layoff facilities described above. These amenities would include the following (**Figure 2-5**):

- Four (4) lighted and fenced adult softball fields (325' to outfield fence)
- Four (4) lighted and fenced youth baseball Fields (225' to outfield fence)
- Five (5) lighted full-size soccer fields (210' X 330')
- Cricket field
- Lighted tennis courts
- Lighted pickleball courts
- Lighted full basketball court
- 18-hole disc golf course
- Amphitheater with seating capacity of 1,500
- Community center building (approx. 30,000 sq. ft.) including outdoor swimming pools
- Dog park (approx. 3 acres)
- Multi-use trails with fitness equipment
- Event and open space turf areas
- Children's adventure play areas and splash pad
- Picnic areas (formal and informal)
- Agriculture education barn
- Resource center
- Maintenance yard
- Parking areas

To enhance the aesthetics of the park, the Project also proposes to realign Mill Creek to replicate its historical meandering alignment from 1937 as shown in **Figure 2-4**.

2.3.3 Access and Roadways

Mineral King Avenue. Currently there are two segments of Mineral King Avenue: one segment runs east to west; and the other curves off of the main segment to the north and would run through the Project before realigning with the main road. The straight east-west roadway segment would be referred to as the Mineral King Avenue (frontage road). The curvilinear segment of Mineral King Avenue would be referred to as Mineral King Avenue (existing re-alignment) west of Tower Street and the Mineral King Avenue (proposed re-alignment) east of Tower Street (arterial roadway). The Project proposes to construct the Mineral King Avenue (proposed re-alignment) east of Tower Street in a mirror image of the existing re-alignment located on the west side of Tower Street to retain access from the east-west frontage road to Road 152 (see **Figure 2-9**).

The existing and proposed re-alignments of Mineral King Avenue would have their alignments finalized and be constructed as part of the future Caltrans interchange at the intersection of Tower Street and SR 198. When this future interchange moves forward, a separate environmental document would be prepared by Caltrans.

Tower Street. To provide access to the Project a new arterial roadway (Tower Street) would be constructed along the western edge of the Project site. Tower Street would be built to City standards for an arterial roadway with an ultimate right-of-way of 110 feet. Tower Street would connect to Mineral King Avenue (frontage road) at the south and Houston Avenue (SR 216) at the north. Existing stub streets and roadway connections would be extended east across the 150-foot-wide SCE corridor to connect to Tower Street—from south to north, Mineral King Avenue (frontage road), Mineral King Avenue (existing re-alignment), Villoy Avenue, Murray Avenue, Race Avenue, Douglas Avenue, and McKinley Avenue.

These connections would be designed to allow the incorporation of the crossings of the Greenway Trail (a separate project) within the SCE corridor.

The improvements to the intersection of Tower Street and Houston Avenue (SR 216) would be made and a stop sign would be added. Later, Caltrans may either provide a signalized intersection or a roundabout pursuant to Caltrans direction and standards. This is not part of this Project's activities and would be addressed by Caltrans in a separate environmental review.

In addition to the connections from the west, two park entrances would be constructed off Tower Street generally at the easterly alignments of Villoy Avenue and McKinley Avenue. These entrance points lead to an internal roadway system that provides circulation within the park. Areas for parking are available immediately off this internal roadway system.

Houston Avenue (SR 216). Currently, SR 216 exists as a four-lane divided roadway between Lovers Lane and McAuliff Street and as a two-lane roadway between McAuliff Street and Road 152.

Road 152. Improvements and underground utility extensions along Road 152 (western half of the road) would consist of a 10-foot roadway widening, grading, sidewalks, and curb and gutter.

2.3.4 Annexation and Land Use Approvals

Prior to pursuing development of the Project, the City would need to amend the General Plan Land Use designation of approximately 42 acres in the northern area from Low Density Residential, Medium Density Residential, and High Density Residential to Parks/Recreation consistent with the remaining 88 acres area north of Mill Creek and the portion already within the city limits. The City would also pre-zone the 130 acres between Mill Creek and Houston Avenue to the Quasi-Public (QP) zone district, under which the Project uses are permitted and which is also consistent with the area already within the city limits (**Figure 2-6**); the unincorporated acreage is currently zoned AE-20 (Exclusive Agricultural – 20-Acre Minimum) by the County. The City would then apply to the Tulare County Local Agency Formation Commission (LAFCo) for annexation of the northern 130 acres. LAFCo's approval and subsequent perfection of the annexation would bring the property into the city limits, at which time the City's zoning would take effect.

The majority of the southern two-thirds of the Project Site is located within Tier I of the City's Urban Development Boundary, while the remainder (which is planned for residential use) is within Tier III, the Urban Growth Boundary. The City's General Plan contains criteria to determine whether land within Tier III can be developed; however, it applies only to residential, commercial, and industrial development. Therefore, the City Council's decision to annex the land for the regional park use constitutes the necessary criteria to allow the Project to be developed in the Tier 3 Urban Growth Boundary.

2.3.5 Site Plan Review

Proposed Concept Plans A1 and B1 were the subject of Site Plan Review on July 22, 2015. City Departments providing review comments included (**Appendix B**):

- Fire Department –Required fire hydrants and provided accessibility comments and conditions.
- Police Department – Comments were given related to sufficient lighting, accessibility, and visibility. Primarily in support of Concept B1 as that concept provides the most accessibility and visibility.
- Public Works (sewer/water/storm drain) – Comments required the Project to comply with City Ordinance No. 13.08 and water features must use recirculated water.
- Solid Waste – No comment.
- Planning – Comments were given regarding the annexation, general plan amendment, change of zone, and lighting and noise concerns.
- Building – No comment.
- Traffic Safety Division – Required a Traffic Impact Analysis.
- Engineering – Comments required the Project to comply with City Standards.

- Parks & Recreation – Preserve valley oak trees.

Ultimately, the Site Plan Review Committee noted that the project should revise and proceed with the entitlement process.

The Project is intended to be built in three phases over an extended period of time, the duration of which is currently unknown. Timing of construction of each phase would be largely dependent on funding. As the project moves forward from phase to phase, construction-level engineering drawings for site grading, utility installation, roadway construction, and other improvements would need to be completed and approved by the City before construction can begin.

2.3.6 Construction Phasing

As noted, the Project would be constructed in multiple phases. The first phase would include the development of the groundwater recharge and stormwater layoff basins. The second phase would include the construction of Tower Street and Road 152 frontage improvements as well as the construction of the following park amenities: Adult Softball Fields, Youth Baseball Fields, Soccer Fields, and Ancillary facilities (maintenance yard, cricket field, basketball court, children's play area, and picnic area) interior roadways and three entrances/exists. The third phase would include construction of the remainder of the park amenities (**Figure 2-9**).

2.3.7 Early Approvals

After the circulation of the NOP, the City adopted two (2) Mitigated Negative Declarations in 2018 (SCH No. 2018041014) and 2020 (SCH No. 2019129021) in response to grant opportunities available for two portions of the Project, the Multi-Purpose Facility (MPF) (Basins F & G) and Basins "D" and "E" , respectively. These areas are denoted in **Figure 2-5**. These analyses of the MNDs can be found in **Appendix Q** and are integrated into this Project EIR. Construction on a portion of the MPF will start soon, the environmental setting will not change significantly.

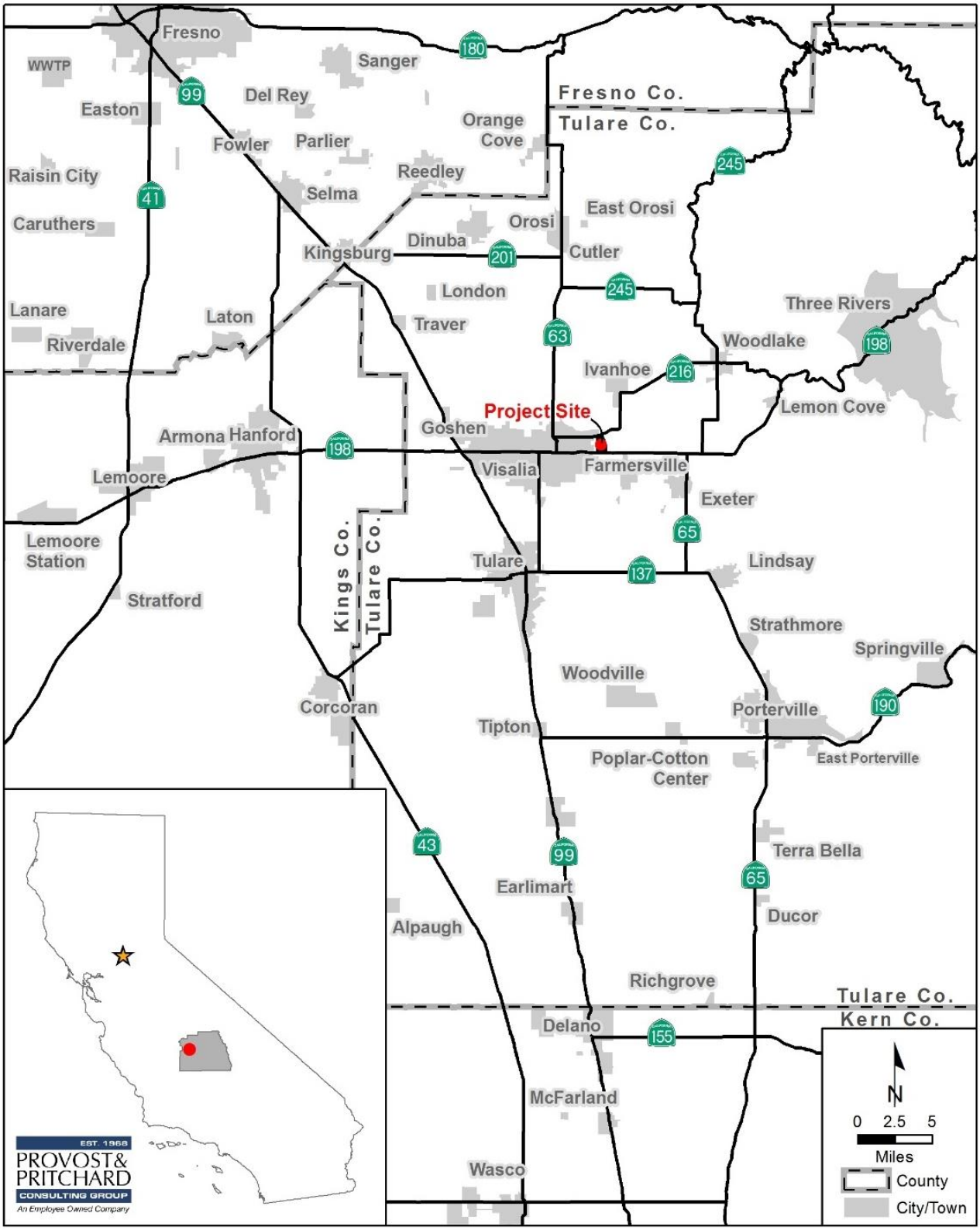


Figure 2-1. Regional Location Map

Figure 2-2. Project Study Boundary Map

Figure 2-3. Proposed Stormwater and Recharge Basins Map

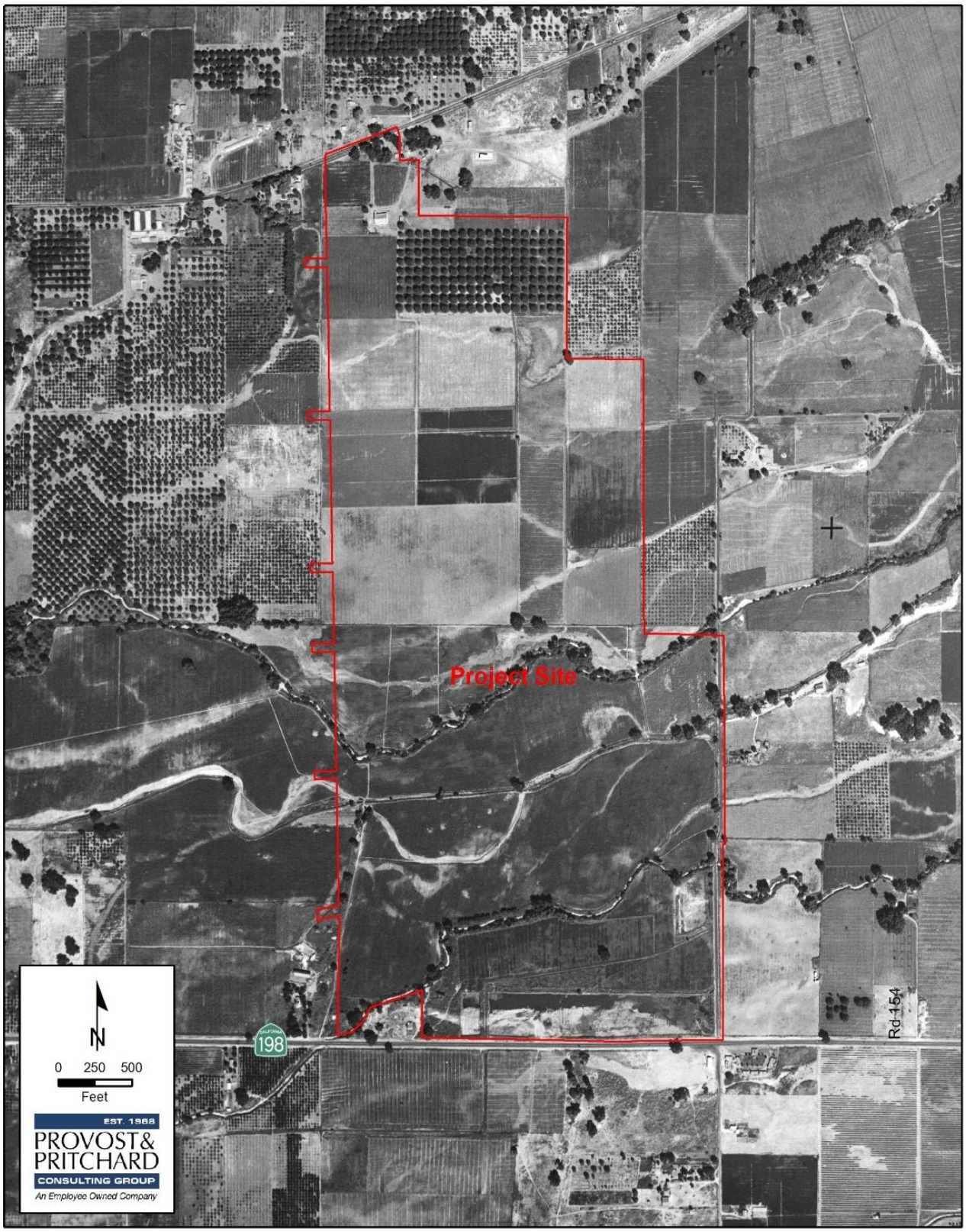


Figure 2-4. 1937 Aerial Photo of Mill Creek

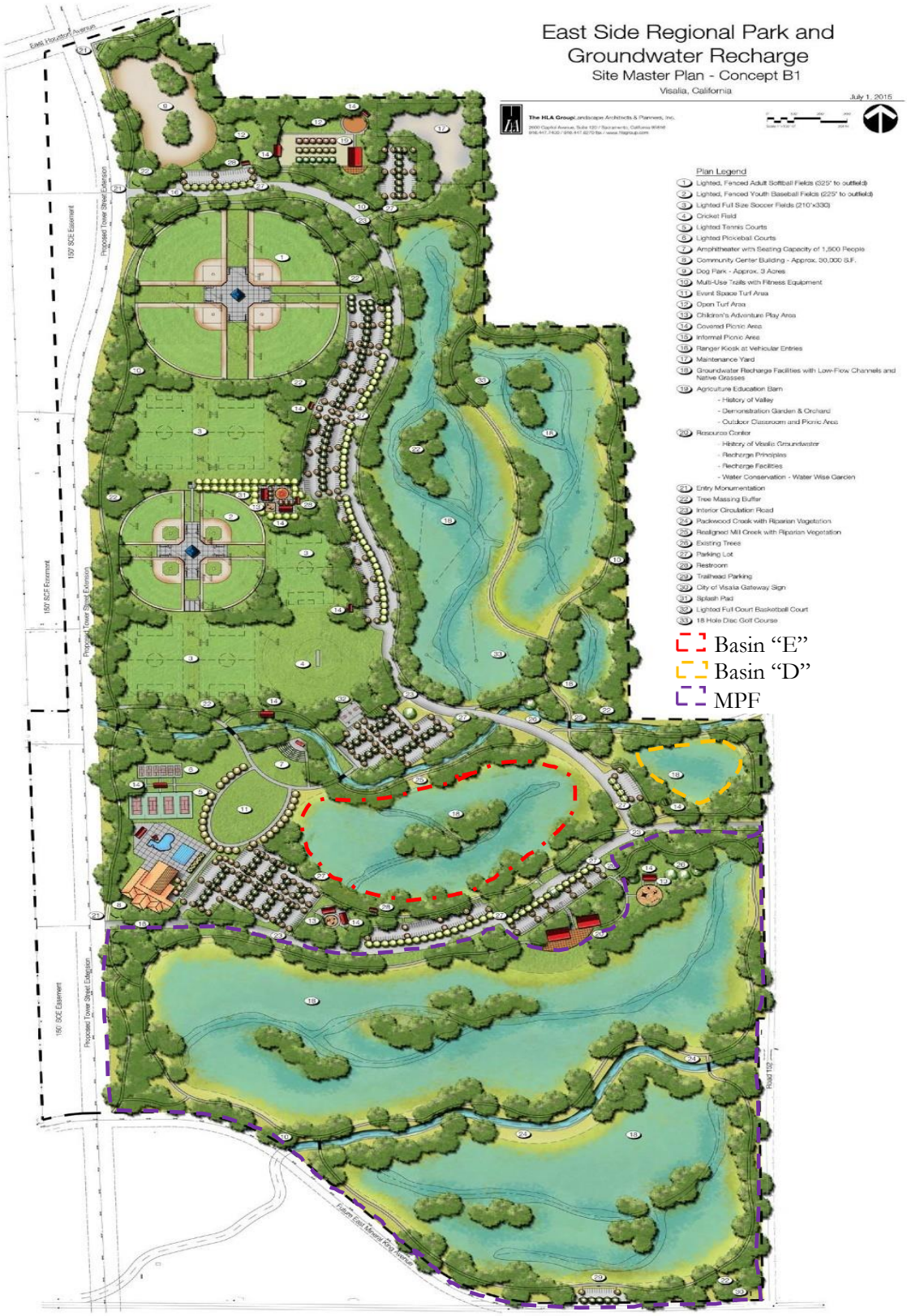


Figure 2-5. Concept B1 - Project

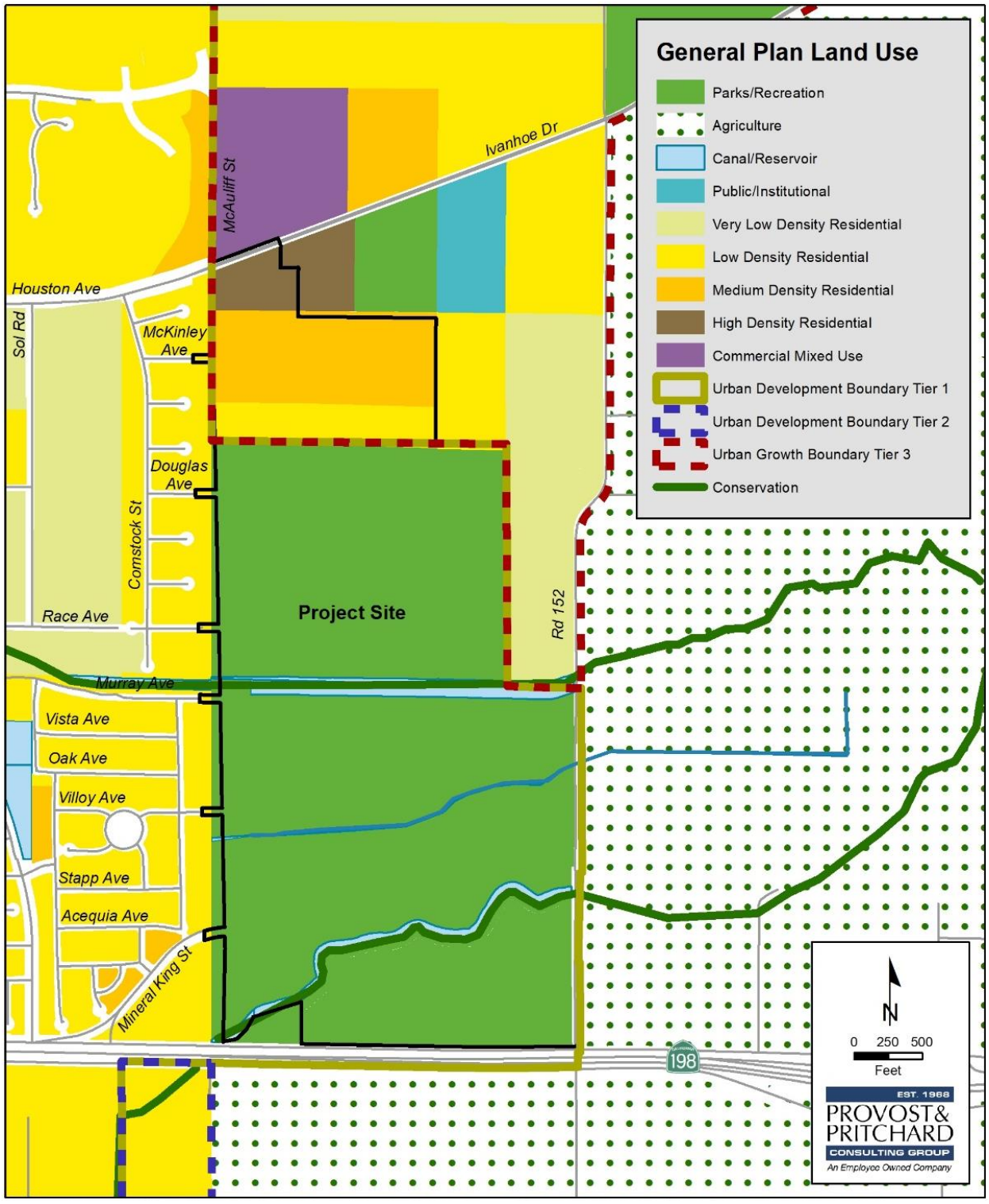


Figure 2-6. City of Visalia General Plan Map

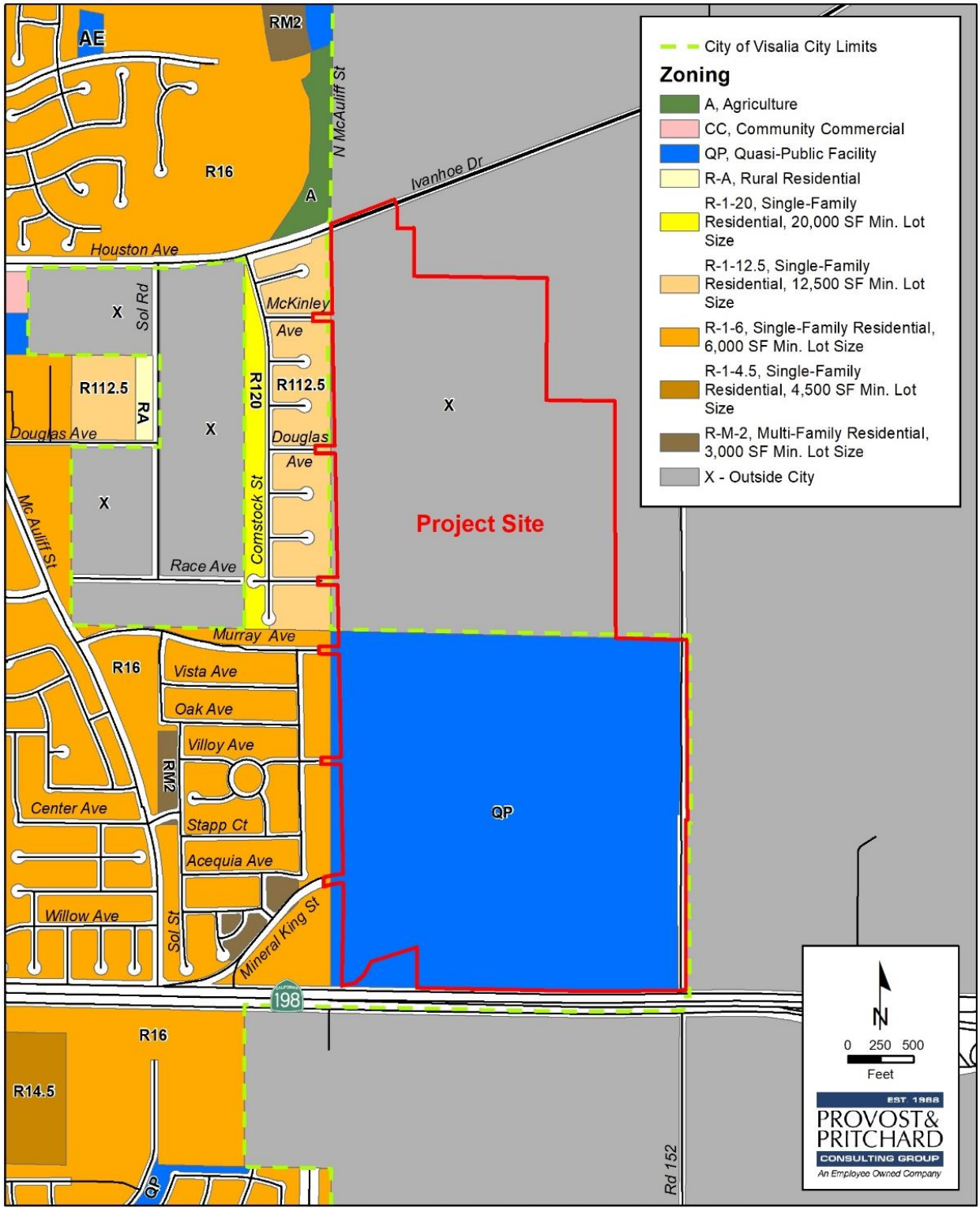


Figure 2-7. City of Visalia Zoning Map as of December 23, 2014

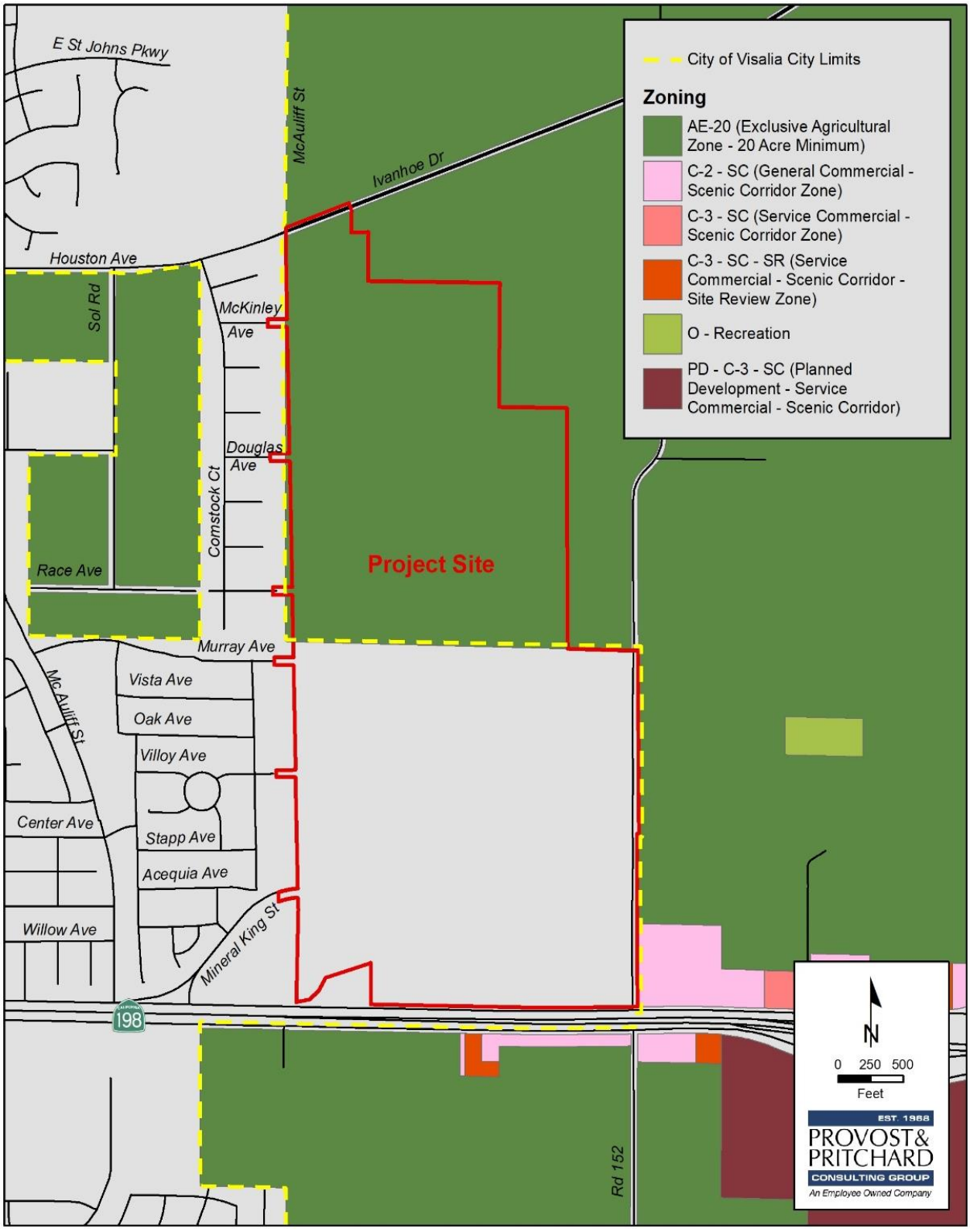


Figure 2-8. County of Tulare Zoning Map as of December 23, 2014

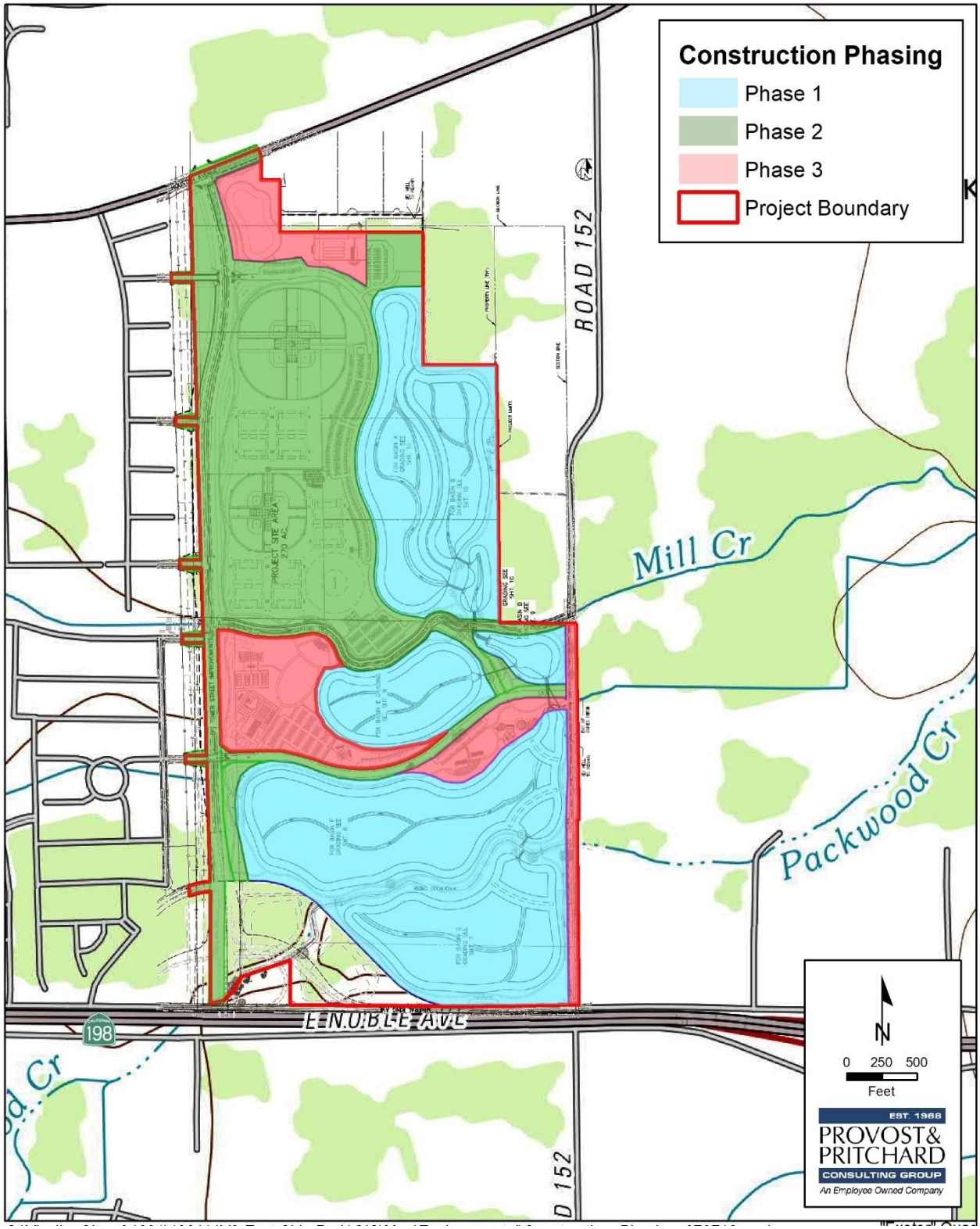


Figure 2-9. Construction Phasing

3 Impact Analysis

3.1 Aesthetics

Table 3-1. Aesthetics

Aesthetics				
Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Environmental Setting

The following description of the environmental setting for the Project is found in the City's General Plan EIR. The Project is located on the flat, agricultural plain of the San Joaquin Valley, about 10 miles west of the beginning of the Sierra Nevada foothills. The high mountain peaks, about 40 miles distant, create a dramatic backdrop on clear days. With a population of some 130,231, Visalia is the largest city in Tulare County, but retains what residents describe as a "small town feel." The City has grown concentrically around its historic core and is surrounded by productive agricultural land.

Views of the Sierra Nevada range to the east and agricultural lands beyond the edges of the city help define the overall image and character of Visalia. Valley oak trees, both individually and in groves, also provide an important scenic feature and link to the natural setting of the San Joaquin Valley. Some groves are protected as part of regional parkland, while others are on agricultural land or within the city itself. Visalia's regular urban grid overlays the natural forms of the Kaweah Delta. While the St. John's River plays an important role in defining the City's edge to the north-east, the smaller creeks and ditches generally have little visibility in the urbanized environment today. Preserving and re-establishing the City's natural waterway system and valley oak tree groves with parks, conservation areas, and trailways is a goal of the proposed [General] Plan.

The 44-mile stretch of State Route 198 between State Route 99 and Sequoia National Park is classified as eligible for State Scenic Highway status, but is not officially designated…While the City has not requested official designation, it has evaluated the corridor in the Scenic Highways Element of the existing General Plan and has taken steps to preserve and enhance the corridors scenic quality."[3]

Light and Glare

The Project site is primarily in agricultural use with rural uses to the north, south, and east and single-family residential uses to the west. There are few on-site sources ambient light and there are no sources of glare. Light

[3] City of Visalia, 2014. General Plan DEIR – Chapter 3.13: Visual Resources http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30504. Pages 3.13-1 and 3.13-2. Date Accessed: 7/6/2016

sources are located primarily along the western boundary of the Project and consist primarily of residential subdivision street lighting.

3.1.2 Regulatory Setting

Federal

There are no federal regulations pertaining to aesthetics that are relevant to the Project.

State

California Environmental Quality Act (CEQA)

CEQA establishes that it is the policy of the State to take all action necessary to provide the people of the state "with…enjoyment of aesthetic, natural, scenic, and historic environmental qualities." (California Public Resources Code Section 21001(b)).

California Scenic Highways Program

Recognizing the value of scenic areas and the value of views from roads in such areas, the State Legislature established the California Scenic Highway Program in 1963. Under this program, State highway segments are designated as eligible for inclusion as scenic routes. Once the local jurisdictions through which a roadway passes have established a corridor protection program, the State may officially designate a roadway as a scenic route. Projects must then be evaluated for their impact on the scenic qualities of the corridor. Each designated corridor is monitored by the State and its designation may be revoked if a local government fails to enforce the provisions of the corridor protection program.

As stated in the Environmental Setting above, SR 198 through the Project vicinity is classified as eligible for State Scenic Highway status but is not officially designated.

Local

City of Visalia General Plan

- Policy LU-P-37: Adopt specific development standards for scenic entryways (gateways) and roadway corridors into the City, including special setback and landscape standards, open space and park development, and/or land use designations.

City of Visalia Municipal Code

Section 17.30.015.H – Lighting: No on-site lighting shall directly or indirectly illuminate adjacent properties or the public street which provides access. The lights and standards to be used for the Project shall be subject to the requirements set forth by the City's Site Plan Review Committee.

City of Visalia Valley Oak Ordinance

The City's Valley Oak Ordinance provides basic standards, measures, and compliance requirements for the preservation and protection of native valley oak trees and landmark trees. The Ordinance prohibits destruction of valley oak trees except with an oak tree removal permit. A permit may be granted only if it is found that the oak tree is in danger of falling on a structure or is host for a plant, pest, or disease endangering other species; if removal is necessary to allow the reasonable enjoyment of private property; or if urban forestry or land management practices warrant removal. If a tree removal permit is granted, the tree must either be replaced by planting new oak trees at the specified mitigation ratio on the same property, or by paying mitigation fees to be

used by the City to plant new oak trees at other locations, consistent with the City Oak Tree Mitigation Policy.[4] As described in **Appendix F**, the Project site does contain valley oak trees

Other

Internationally-Recognized Guidelines

The International Commission on Illumination (CIE) provides guidelines for light levels for building facades.

CIE 150-2003 excerpts for reference:

Table 3-2. Environmental lighting zone

Zone	Surrounding	Lighting Environment	Examples
E1	Natural	Intrinsically dark	National parks or protected sites
E2	Rural	Low district brightness	Industrial or residential rural areas
E3	Suburban	Medium district brightness	Industrial or residential suburbs
E4	Urban	High district brightness	Town Centers and commercial areas

Table 3-3. Maximum values for intensity of luminaires in designated directions

Light Technical Parameter	Application Conditions	Environmental Zones			
		E1	E2	E3	E4
Luminous intensity emitted by luminaries	Pre-curfew	2,500 cd	7,500 cd	10,000 cd	25,000 cd
	Post-curfew hours	0 cd*	500 cd	1,000 cd	2,500 cd

*Note: If the luminaire is for public (road) lighting then this value may be up to 500 cd.

[4] City of Visalia, 2007. Oak Tree Mitigation Policy. http://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=3800 Page 1. Date Access: 11/6/2017.

3.1.3 Photos of the Project Site and Vicinity

Figure 3-1. Villoy Avenue looking East

Figure 3-2. Road 152 looking West

Figure 3-3. Road 152 looking Southwest

Figure 3-4. Road 152 at Packwood Creek

Figure 3-5. Road 152 at Packwood Creek

Figure 3-6. Road 152 at Oaks Ditch

Figure 3-7. Road 152 at Oaks Ditch

Figure 3-8. Road 152 at Mill Creek

Figure 3-9. Road 152 at Mill Creek

Figure 3-10. Road 152 north of Mill Creek looking West

Figure 3-11. Avenue 216 looking south along Tower Road

Figure 3-12. Villoy Avenue at Powerline Easement looking South

Figure 3-13. Villoy Avenue looking North at Powerline Easement

3.1.4 Impact Assessment

a) Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact. The Project would change the use of the site from agricultural use to a combination of park facilities and groundwater recharge and storm-water layoff basins. While both uses are considered open-space uses, the view-shed for adjacent properties and the vicinity would convert from rows of dense orchards on a relatively flat horizontal aspect to undulating ground with excavated basins cleared of orchards and replaced with induced turf and other landscaping, including park-use related structures and amenities, parking areas, trails, and lighting. Views of agricultural lands beyond the City's edge, including croplands, orchards, vineyards, and open rangelands, contribute to Visalia's visual character. The removal of the pecan and walnut orchards would open additional viewsheds from the west, allowing for increased views of the Sierra Nevada mountains. Although the Project would constitute a substantial change of the existing scenic vista, it would not do so in a detrimental way. The impact would be less than significant.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. SR 198, which abuts the Project to the south, is eligible to be listed as a State Scenic Highway but is not officially designated. The Project design emphasizes the importance of providing attractive facilities, such as the re-channelization of Mill Creek to a meandering stream and the integration of recharge basins as attractive park features. There would be no impact.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less than Significant Impact. The proposed design of the park and recharge facilities would focus on incorporating the existing channels as attractive features with the express purpose of maximizing the visual

quality of the site. The two creeks and the irrigation ditches on the Project site are surrounded by privately-owned pecan and walnut orchards and are currently blocked from public view. The aesthetics of the park design would not only improve the site's visual character but would also allow and encourage the public to enjoy features that are not currently visible or accessible. Therefore, the Project would serve to enhance the aesthetic character of the site rather than degrade it. Impacts would be less than significant.

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

Less than Significant Impact. Skyglow is artificial lighting from urbanized uses that alters the rural landscape and, in sufficient quantity, lights up the nighttime sky, thus reducing the darkness of the night sky and the visibility of the stars. Development of the Project would include the addition of new lighting for security purposes, as well as to illuminate the facility for nighttime uses or activities over a nearly 300-acre area. This lighting would reduce the ambient darkness of the nighttime sky and could be a substantial source of light and glare.

To minimize lighting effects, the Project would comply with Section 17.30.015.H of the Visalia Zoning Ordinance which prohibits on-site lighting from directly or indirectly illuminating adjacent properties or public rights-of-way. The City has not established a numerical threshold of significance for what would be considered substantial light or glare; thus, this EIR analyzes light generated by the Project against CIE 150-2003, an internationally-recognized standard set for light and glare. These standards can be found above in **Section 0** of this document.

Although lighting would be designed to minimize spillover effects, lighting on the Project site could cause some spillover into adjacent areas. Furthermore, bright lighting of the park facility, particularly during evening hours, would contribute to skyglow.

Constructing the Project with shielded and downward-facing lights, as encouraged by the City zoning regulations, would minimize lighting effects. Lighting effects would also be minimized during site operation by turning off the lights for sports fields that are not in use. Similarly, lighting effects on adjacent land uses would be minimized by buffer landscaping and sound-mitigating walls. Thus, the Project skyglow effects would be limited, similar to the effects of a high school football stadium, and of shorter duration than the effects of numerous commercial and industrial uses that are brightly illuminated all night.

A Photometric and Glare Impact analysis (**Figure 3-14, Appendix O**) was prepared and superimposed onto the Concept Plans A1 and B1, juxtaposed with the existing residential developments to the west of the Project Site. Color gradients represent the intensity of glare that would be observed from that location, with the darkest of greens representing up to 500 candelas, to the darkest of reds representing greater than 150,000 candelas. For reference, 500 candelas are equivalent to the glare generated from a 100-watt light bulb, and 25,000 candelas are comparable to high-beam headlights. Two residential subdivisions to the west of the Project site would receive minimal amount of glare from the Project, an amount comparable to pre- and post-curfew light levels expected in a suburban residential area. Light spillage from the Project at the property line would be less than 0.01 for both horizontal foot-candles (ground illumination) and vertical foot-candles (wall illumination). For comparison, local roads are typically illuminated between 0.3 and 0.8 foot-candles, or 300 times greater than the proposed property line illuminance. Illumination would be greatest at the Project west property line at 464 candelas, comparable to a 100-watt light bulb.

With implementation of the City's existing code requirements and policies, potential lighting and glare impacts for the Project are considered less than significant.

Figure 3-14. Project Light Glare Analysis

3.1.5 Cumulative Impacts

Less than Significant Impact. There are a total of four projects that have been proposed or approved within four miles of the Project. (See **Appendix R** for full list of projects) Implementation of the Project in combination with these related projects would result in more developed urban area. While many of the related projects, including this Project, would be visible from public and private properties, the related projects are too distant from each other to have a cumulatively considerable aesthetic effect. In addition, the development of the four projects is expected to occur in accordance with adopted plans and regulations of either the City or the County, depending upon specific location. Therefore, no cumulative impacts related to aesthetics would occur.

3.2 Agriculture and Forestry Resources

Table 3-4. Agriculture and Forest Resources

Agriculture and Forest Resources				
Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☒	☐	☐	☐
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 non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

3.2.1 Environmental Setting

Agriculture has been the predominant land use in the Project area since the late 1800s. Due to the region's rich soils, water resources, and favorable geographic and climatic conditions, agricultural activity in and around Visalia is highly productive. Visalia's agricultural heritage has contributed significantly to the City's economy – much of the region's economic activity is related to the cultivation, processing, and distribution of agricultural products – as well as its visual and cultural character. Historically, City's General Plan policies have acknowledged the value of the areas agricultural resources and sought to preserve them through urban growth management strategies and monitoring despite a prevalence of development pressures on local landowners and a growing urban population.[5]

Farmland, consisting primarily of pecan and walnut orchards, is the prominent land use within the Project Site.

[5] City of Visalia. General Plan Update 2030 – Chapter 2: Land Use. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30474 Date Accessed: 7/6/2016

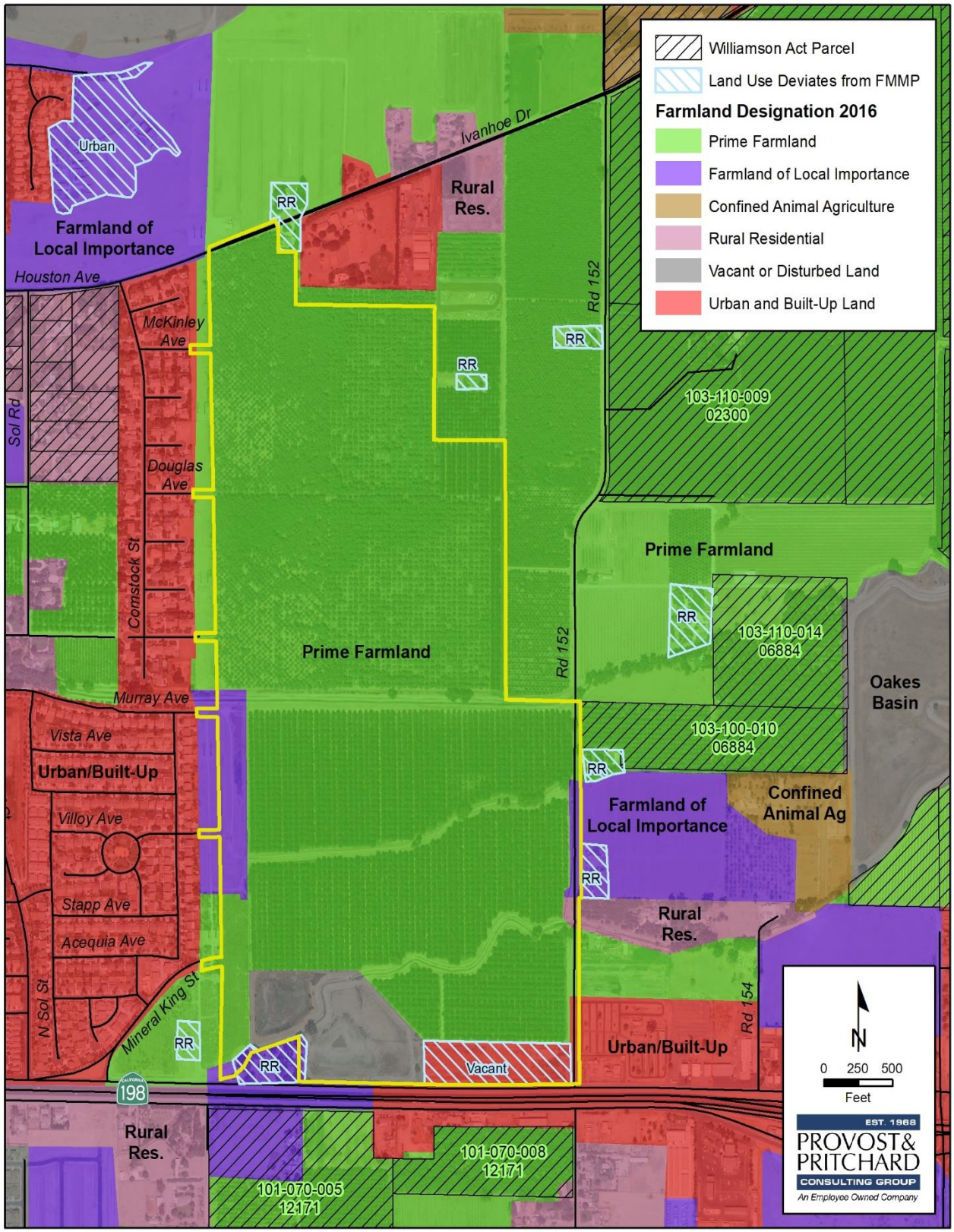


Figure 3-15. Farmland Designation Map

3.2.2 Regulatory Setting

Federal

United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS)

The USDA NRCS soil maps and farmland uses provide comprehensive information necessary for understanding, managing, conserving, and sustaining the nation's limited soil resources. In addition to many other natural resource conservation programs, the NRCS manages the Farmland Protection Program, which provides funds to help purchase development rights to keep productive farmland in agricultural uses. Working through existing programs, USDA joins with State, Tribal, or local governments to acquire conservation easements or other interests from landowners.

The NRCS also classifies soils according to their suitability for agricultural use. The categories of the NRCS Soil Capability Classification System are as follows:

- Class I Soils have few limitations that restrict their use;
- Class II Soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices;
- Class III Soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both;
- Class IV Soils have very severe limitations that reduce the choice of plants or that require very careful management, or both;
- Class V Soils are not likely to erode but have other limitations, impractical to remove, that limit their use;
- Class VI Soils have severe limitations that make them generally unsuitable for cultivation; and
- Class VII Soils have very severe limitations that make them unsuitable for cultivation

Federal Farmland Protection Policy Act

The NRCS oversees the Farmland Protection Policy Act (FPPA) (7 United States Code [USC] Section 4201, et seq.; see also 7 Code of Federal Regulations [CFR] 658). The FPPA (a subtitle of the 1981 Farm Bill) is national legislation designed to protect farmland. The FPPA states its purpose is to "minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses." The FPPA applies to projects and programs that are sponsored or financed in whole or in part by the federal government. The FPPA does not apply to private construction projects not subject to federal permitting and licensing, projects planned and completed without assistance from a federal agency, federal projects related to national defense during a national emergency, or projects proposed on land already committed to urban development. The FPPA spells out requirements to ensure federal programs to the extent practical are compatible with State, local, and private programs and policies to protect farmland and calls for the use of the Land Evaluation and Site Assessment (LESA) system to aid in analysis. Because the City may ultimately seek some federal funding for transportation or other capital improvements related to this Project, this document addresses the FPPA as an applicable regulation.

State

California Department of Conservation, Division of Land Resource Protection

As part of the Farmland Mapping & Monitoring Program (FMMP), the California Department of Conservation (DOC) applies the NRCS soil classifications to identify agricultural lands, and these agricultural designations

are used in planning for the present and future of California's agricultural land resources. These designated agricultural lands are included in the Important Farmland Maps. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP provides analysis of agricultural land use and land use changes throughout California. The DOC has a minimum mapping unit of 10 acres, with parcels that are smaller than 10 acres being absorbed into the surrounding classifications.

The list below provides a comprehensive description of all the categories mapped by the DOC.

- Prime Farmland. Farmland that has 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 four years prior to the mapping date.
- Farmland of Statewide Importance. 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 four years prior to the mapping date.
- Unique Farmland. 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 four years prior to the mapping date.
- Farmland of Local Importance. Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- Grazing Land. Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
- Urban and Built-up Land. Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- Other Land. 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 and 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.

As shown in **Figure 3-15**, approximately 89% of the Project site is designated Prime Farmland, approximately 9% is designated Farmland of Local Importance, and approximately 2% is designated Urban and Built-Up Land.

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is promulgated in California Government Code (GC) Sections 51200-51297.4. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses in return for reduced property tax assessments. Private land within locally designated agricultural preserve areas is eligible for enrollment under Williamson Act contracts. However, an agricultural preserve must consist of no less than 100 acres. In order to meet this requirement two or more parcels may be combined if they are contiguous or if they are in common ownership.

The Williamson Act program is administered by the DOC in conjunction with local governments, which administer the individual contract arrangements with landowners. The landowner commits the parcel to a 10-year period, or a 20-year period for property restricted by a Farmland Security Zone Contract, wherein no conversion to a non-agricultural use is permitted. Each year the contract automatically renews unless a notice of non-renewal is filed. In return, the land is taxed at a rate based on the actual use of the land for agricultural purposes as opposed to its unrestricted market value. A landowner may also submit an application for immediate cancellation, provided that the cancellation is consistent with the criteria stated in the California Land Conservation Act and those adopted by the affected county or city. Non-renewal or immediate cancellation does not change the zoning of the property. Participation in the Williamson Act program is dependent on city or county adoption and implementation of the program and is voluntary for landowners.[6]

The Project site does not contain any land subject to a Williamson Act contract; the closest Williamson Act parcels are located 60 feet to the east and 200 feet south of the Project, respectively.

Farmland Security Zone Act

The Farmland Security Zone Act is similar to the Williamson Act and was passed by the State Legislature is 1999 to ensure that long-term farmland preservation is part of public policy. Farmland Security Zone Act contracts are sometimes referred to as "Super Williamson Act Contracts." Under the provisions of this act, a landowner already under a Williamson Act contract can apply for Farmland Security Zone status by entering into a contract with the county. Farmland Security Zone classification automatically renews each year for an additional 20 years. In return for a further 35% reduction in the taxable value of land and growing improvements (in addition to Williamson Act tax benefits), the owner of the property is precluded from developing the property into nonagricultural uses.7

California Farmland Conservancy Program

The California Farmland Conservancy Program (Public Resources Code Section 10200, et seq.) supports the voluntary granting of agricultural conservation easements from landowners to qualified nonprofit organizations, such as land trusts, as well as local governments. Conservation easements are voluntarily established restrictions that are permanently attached to property deeds, with the general purpose of retaining land in its natural, open-space, agricultural, or other condition while preventing uses that are deemed inconsistent with the specific conservation purposes expressed in the easements. Agricultural conservation easements define conservation purposes that are tied to keeping land available for continued use as farmland. Such farmlands remain in private ownership and the landowner retains all farmland use authority, but the farmland is restricted in its ability to be subdivided or used for nonagricultural purposes, such as urban uses. Potential impacts on conservation easements would be addressed in subsequent project-level documents.

California Environmental Quality Act (CEQA) Definition of Agricultural Lands

Public Resources Code Section 21060.1 defines "agricultural land" for the purposes of assessing environmental impacts using the FMMP. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP provides analysis of agricultural land use and land use changes throughout California. This Project is being evaluated pursuant to CEQA.

Local

City of Visalia General Plan Update

- Policy LU-P-14: Recognize the importance of agriculture-related business to the City and region,

[6] California Department of Conservation. Williamson Act Program. http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx. Date Accessed: 1/2015.
[7] Farmland Security Zone Act. http://www.consrv.ca.gov/dlrp/lca/farmland_security_zones/Pages/Index.aspx. Date Accessed: 1/21/2015.

- Policy LU-P-25: Provide planning and technical support for the relocation of agricultural operations currently located in the City to compatible locations in the Planning Area or the County.
- Policy LU-P-30: Maintain greenbelts, or agricultural/open space buffer areas, between Visalia and other communities by implementing growth boundaries and working with County and land developers to prevent premature urban growth north of the St. Johns River and other sensitive locations within the timeframe of this General Plan.
- Policy LU-P-44: Develop land use and site design measures for areas adjacent to high-voltage power facilities. Measures will include landscape buffers and mandatory setbacks from substations and transmission towers and lines.

3.2.3 Impact Assessment

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

Potentially Significant Impact. Construction of the Project would result in the conversion of approximately 253 acres of Prime Farmland and 21 acres of Farmland of Local Importance as shown on **Figure 3-15.** However, the Project would result in groundwater recharge in a region plagued by groundwater overdraft.

Implementation of the groundwater recharge component of the Project would increase the sustainability of groundwater levels and thereby helping the sustainability of agricultural efforts in the region and reducing the potential for the fallowing of farmland.

The Project site is located in Growth Area boundaries Tier II and Tier III. General Plan Policy LU-P-34 directs the City to "Create and adopt a mitigation program to address conversion of Prime Farmland and Farmland of Statewide Important in Tiers II and III." This policy however exempts public facilities, including regional parks and recharge basins.

The City foresaw the necessary conversion of farmland when adopting the 2030 General Plan Update. The EIR prepared in conjunction with the General Plan Update concluded that there would be significant and unavoidable impacts concerning the conversion of farmland. In certifying the EIR, the City Council adopted Resolution No. 2014-37, which contained a SOC declaring that the significant loss of agriculture was outweighed by the benefits that would result from its conversion, and that there were no feasible mitigation measures that could reduce the impact to a less than significant level. The General Plan designates narrow strips (i.e., buffers) that parallel and abut Mill Creek and Packwood Creek as Conservation; however, the overall Project site is designated as Parks/Recreation. Development of the site for recreational and other uses was addressed by the General Plan and the associated EIR and the impacts were determined to be significant and unavoidable and an SOC was adopted, no further analysis is required (Guidelines Section 15152(d)(1)).

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The portion of the site located within the Visalia City limits is currently zoned QP. The portion within unincorporated the County is zoned AE-20 (Agricultural). Recreational facilities are permitted by right within the City's QP zone; however, they are not permitted within the County's AE-20 zone. The Project would amend the City's General Plan to reflect the entirety of the Project site as Parks/Recreation,[8] with a corresponding change of zoning to QP. Given that the zoning of the Project site would no longer allow agriculture, there would not be a conflict with agricultural zoning. The site does not contain any land subject to a Williamson Act contract. There would be no impact.

[8] The creek buffer areas will remain designated as Conservation.

c) Would the project 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))?

No Impact. The Project would not conflict with zoning for, or cause rezoning of, forest land or timberland. No designated forest land or timberland is present at the Project Site. There would be no impact.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project would not result in the loss of forest land or conversion of forest land to non-forest use, given that no designated forest land or timberland is present at the site.

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

Less than Significant Impact. The Project does not involve any other components beyond those previously discussed under Impact a) above that would result in the conversion of farmland to non-agricultural use.

3.2.4 Cumulative Impacts

Potentially Significant Impact. There are a total of four projects that have been proposed or approved within four miles of the Project. Implementation of this Project in combination with these related projects would result in the conversion of Prime Farmland and Farmland of Local Importance. The City General Plan includes policies that limit the conversion of Important Farmland areas to the minimum extent needed to accommodate long-term growth, and phasing development in such a way that prevents the possibility of reducing the viability of remaining farmland. There would be a cumulatively considerable impact to the conversion of Prime Farmland and Farmland of Local Importance; this impact would be significant and unavoidable.

3.3 Air Quality

Table 3-5. Air Quality

Air Quality					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

VRPA Technologies, Inc. prepared an *Air Quality and Greenhouse Gas Impact Assessment* in March 2019. The following information can be found in **Appendix C** of this document.

The Project lies within the central portion of the San Joaquin Valley in Tulare County. The Project is located near the eastern border of the City at an elevation of approximately 331 feet above sea level with the surrounding area mostly flat.

The County, including the City, is located in the San Joaquin Valley Air Basin (SJVAB), one of the most polluted air basins in the Country –The surrounding topography includes foothills and mountains to the east and west. These mountain ranges direct air circulation and dispersion patterns. Temperature inversions can trap air within the Valley, thereby preventing the vertical dispersal of air pollutants. In addition to topographic conditions, the local climate can also contribute to air quality problems. The climate in the County is classified as Mediterranean, with moist cool winters and dry warm summers.

The SJVAB comprises eight counties: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. Encompassing 24,840 square miles, the San Joaquin Valley is the second largest air basin in California. Cumulatively, counties within the Air Basin represent approximately 16 percent of the States geographic area. The Air Basin is bordered by the Sierra Nevada Mountains on the east (8,000 to 14,492 feet in elevation), and the Tehachapi Mountains on the south (9,000 feet elevation). The San Joaquin Valley is open to the north extending to the Sacramento Valley Air Basin.

Wind patterns within the SJVAB result from marine air that generally flows into the Basin from the San Joaquin River Delta. The Coastal Range hinders wind access into the Valley from the west, the Tehachapis prevent southerly passage of airflow, and the high Sierra Nevada Mountain Range provides a significant barrier to the east. These topographical features result in weak airflow that becomes restricted vertically by high barometric

pressure over the Valley. As a result, the SJVAB is highly susceptible to pollutant accumulation over time. Most of the surrounding mountains are above the normal height of summer inversion layers (1,500 – 3,000 feet).

Ozone, classified as a "regional" pollutant, often afflicts areas downwind of the original source of precursor emissions. Ozone can be easily transported by winds from a source area. Peak ozone levels tend to be higher in the southern portion of the Valley, as the prevailing summer winds sweep precursors downwind of northern source areas before concentrations peak. The separate designations reflect the fact that ozone precursor transport depends on daily meteorological conditions.

Other primary pollutants, carbon monoxide (CO) for example, may form high concentrations when wind speed is low. During the winter, County experiences cold temperatures and calm conditions that increase the likelihood of a climate conducive to high CO concentrations.

Precipitation and fog tend to reduce or limit some pollutant concentrations. Ozone needs sunlight for its formation, and clouds and fog block the required radiation. CO is slightly water-soluble, so precipitation and fog tends to "reduce" CO concentrations in the atmosphere. Inhalable particulate matter at 10 micrometers (PM_{10}) is somewhat "washed" from the atmosphere with precipitation. Precipitation in the San Joaquin Valley is strongly influenced by the position of the semi-permanent subtropical high-pressure belt located off the Pacific coast. In the winter, this high-pressure system moves southward, allowing Pacific storms to move through the San Joaquin Valley. These storms bring in moist, maritime air that produces consideration precipitation on the western, upslope side of the Coast Ranges. Significant precipitation also occurs on the western side of the Sierra Nevada. On the Valley floor, however, there is some down slope flow from the Coast Ranges and the resultant evaporation of moisture from associated warming results in a minimum of precipitation. Nevertheless, the majority of the precipitation falling in the San Joaquin Valley is produced by those storms during the winter. Precipitation during the summer months is in the form of convective rain showers and is rare. It is usually associated with an influx of moisture into the San Joaquin Valley through the San Francisco area during an anomalous flow pattern in the lower layers of the atmosphere. Although the hourly rates of precipitation from these storms may be high, their rarity keeps monthly totals low.

Precipitation on the San Joaquin Valley floor and in the Sierra Nevada decreases from north to south. Stockton in the north receives about 20 inches of precipitation per year, Fresno in the center, receives about 10 inches per year, Bakersfield at the southern end of the valley receives less than 6 inches per year and the City received on average 10.93 inches per year.

In addition to climatic conditions, air pollution can be caused by human/socioeconomic conditions. Human causes of air pollution in the Valley consist of population growth, urbanization (gas-fired appliances, residential wood heaters, etc.), mobile sources (i.e., cars, trucks, airplanes, trains, etc.), oil production, and agriculture. These are called anthropogenic, or human-caused, sources of emissions. The most significant factors, which are accelerating the decline of air quality in the SJVAB, are the Valley's rapid population growth and its associated increases in traffic, urbanization, and industrial activity.

CO emissions overwhelmingly come from mobile sources in the San Joaquin Valley; on-road vehicles contribute 65 percent, while other mobile vehicles, such as trains, planes, and off-road vehicles contribute another 17 percent. Motor vehicles account for significant portions of regional gaseous and particulate emissions. In addition, construction and agricultural activities can generate significant temporary gaseous and particulate emissions (dust, ash, smoke, etc.).

Other sources may not seem to fit into any one of the major categories or they may seem to fit in a number of them. These could include agricultural uses, dirt roads, animal shelters, animal feed lots, chemical plants and industrial waste disposal, which may be a source of dust, odors, or other pollutants. For the County, this category includes several agriculturally related activities, such as plowing, harvesting, dusting with herbicides and pesticides, and other related activities. Finally, industrial contaminants and their potential to produce various effects depend on the size and type of industry, pollution controls, local topography, and meteorological conditions. Major sources of industrial emissions in the County consist of agricultural production and processing operations, wine production, and marketing operations.

The primary contributors of PM_{10} emissions in the San Joaquin Valley are fugitive windblown dust from "open" fields (38%) and road dust from both paved and unpaved roads (38%). Farming activities only contribute 14% of the PM_{10}.

The SJVAB is regulated by the San Joaquin Valley Air Pollution Control District (SJVAPCD) and the California Air Resources Board (CARB). SJVAPCD and CARB maintain numerous air quality monitoring sites throughout each County in the Air Basin to measure ozone, Inhalable Particulate Matter at 2.5 micrometers ($PM_{2.5}$), and PM_{10}. The closest monitoring station to the Project is the N. Church Street Monitoring Station. The station monitors particulates, ozone, CO, and nitrogen dioxide (NO_2) in parts per million (ppm).

Table 3-6. Maximum Pollutant Level Proximate to Project

Maximum Pollutant Levels at N. Church Street Monitoring Station						
Pollutant	Time Averaging	2011	2012	2013	Standards	
		Maximums	Maximums	Maximums	National	State
Ozone (O_3)	1-hour	0.119 ppm	0.111 ppm	0.095 ppm	-	0.090 ppm
Ozone (O_3)	8-hour	0.084 ppm	0.094 ppm	0.084 ppm	0.075 ppm	0.070 ppm
Carbon Monoxide (CO)	8-hour	0.105 ppm	0.108 ppm	0.095 ppm	9.0 ppm	9.0 ppm
Nitrogen Dioxide (NO_2)	1-hour	0.058 ppm	0.061 ppm	0.062 ppm	100 ppb (0.100 ppm)	0.18 ppm
Nitrogen Dioxide (NO_2)	Annual Average	0.012 ppm	0.012 ppm	0.012 ppm	0.053 ppm	0.030 ppm
Particulates (PM_{10})	24-hour	78.1 µg/m^3	76.2 µg/m^3	160.0 µg/m^3	150 µg/m^3	50 µg/m^3
Particulates ($PM_{2.5}$)	Federal Annual Arithmetic Mean	33.4 µg/m^3	37.3 µg/m^3	43.2 µg/m^3	-	20 µg/m^3
Particulates ($PM_{2.5}$)	24-hour	73.2 µg/m^3	76.2 µg/m^3	124.6 µg/m^3	35 µg/m^3	-
Particulates ($PM_{2.5}$)	Federal Annual Arithmetic Mean	16.0 µg/m^3	14.7 µg/m^3	18.9 µg/m^3	12 µg/m^3	12 µg/m^3

CARB Website, 2015

The SJVAPCD operates regional air quality monitoring networks that provide information on average concentrations of pollutants for which State or federal agencies have established ambient air quality standards. Descriptions of nine pollutants of importance in County follow (**Appendix C)**.

Ozone (1-hour and 8-hour)

The most severe air quality problem in the Air Basin is the high level of ozone. Ozone occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. Here, ground level, or "bad" ozone, is an air pollutant that damages human health, vegetation, and many common materials. It is a key ingredient of urban smog. The troposphere extends to a level about 10 miles up, where it meets the second layer, the stratosphere. The stratospheric, or "good" ozone layer, extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

"Bad" ozone is what is known as a photochemical pollutant. It needs reactive organic gases (ROG), Nitrogen Oxides (NO_X), and sunlight in order to form. ROG and NO_X are emitted from various sources throughout the

County. In order to reduce ozone concentrations, it is necessary to control the emissions of these ozone precursors.

Significant ozone formation generally requires an adequate number of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

Ozone is a regional air pollutant. It is generated over a large area and is transported and spread by wind. Ozone, the primary constituent of smog, is the most complex, difficult to control, and pervasive of the criteria pollutants. Unlike other pollutants, ozone is not emitted directly into the air by specific sources. Ozone is created by sunlight acting on other air pollutants (called precursors), specifically NO_X and ROG. Sources of precursor gases to the photochemical reaction that form ozone number in the thousands. Common sources include consumer products, gasoline vapors, chemical solvents, and combustion products of various fuels. Originating from gas stations, motor vehicles, large industrial facilities, and small businesses such as bakeries and dry cleaners, the ozone-forming chemical reactions often take place in another location, catalyzed by sunlight and heat. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins. Approximately 50 million people lived in counties with air quality levels above the United State Environmental Protection Agency's (EPA) health-based national air quality standard in 1994. The highest levels of ozone were recorded in Los Angeles, closely followed by the San Joaquin Valley. High levels also persist in other heavily populated areas, including the Texas Gulf Coast and much of the Northeast.

While the ozone in the upper atmosphere absorbs harmful ultraviolet light, ground-level ozone is damaging to the tissues of plants, animals, and humans, as well as to a wide variety of inanimate materials such as plastics, metals, fabrics, rubber, and paints. Societal costs from ozone damage include increased medical costs, the loss of human and animal life, accelerated replacement of industrial equipment, and reduced crop yields. Ozone also damages natural ecosystems, such as forests and foothill communities and some man-made materials, such as rubber, paint, and plastic.

High concentrations of ground-level ozone can adversely affect the human respiratory system. Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. High levels of ozone may negatively affect immune systems, making people more susceptible to respiratory illnesses, including bronchitis and pneumonia. Ozone accelerates aging and exacerbates pre-existing asthma and bronchitis and, in cases with high concentrations, can lead to the development of asthma in active children. Active people, both children and adults, appear to be more at risk from ozone exposure than those with a low level of activity. Additionally, the elderly and those with respiratory disease are also considered sensitive populations for ozone.

People who work or play outdoors are at a greater risk for harmful health effects from ozone. Children and adolescents are also at greater risk because they are more likely than adults to spend time engaged in vigorous activities. Research indicates that children under 12 years of age spend nearly twice as much time outdoors daily than do adults. Teenagers spend at least twice as much time as adults in active sports and outdoor activities. In addition, children inhale more air per pound of body weight than adults, and they breathe more rapidly than adults. Children are less likely than adults to notice their own symptoms and avoid harmful exposures.

Ozone is a powerful oxidant—it can be compared to household bleach, which can kill living cells (such as germs or human skin cells) upon contact. Ozone can damage the respiratory tract, causing inflammation and irritation, and it can induce symptoms such as coughing, chest tightness, shortness of breath, and worsening of asthmatic symptoms. Ozone in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. Exposure to levels of ozone above the current ambient air quality standard leads to lung inflammation and lung tissue damage and a reduction in the amount of air inhaled into the lungs.

CARB found ozone levels in the SJVAB in nonattainment of federal and State standards (**Appendix C**).

Particulate Matter (PM_{10} and $PM_{2.5}$)

Particulate matter pollution consists of very small liquid and solid particles that can remain suspended in the air for long periods. Some particles are large or concentrated enough to be seen as soot or smoke. Others are so small they can be detected only with an electron microscope. Particulate matter is a mixture of materials that can include smoke, soot, dust, salt, acids, and metals. Particulate matter is emitted from stationary and mobile sources, including diesel trucks and other motor vehicles; power plants; industrial processes; wood-burning stoves and fireplaces; wildfires; dust from roads, construction, landfills, and agriculture; and fugitive windblown dust. PM_{10} refers to particles less than or equal to 10 microns in aerodynamic diameter. $PM_{2.5}$ refers to particles less than or equal to 2.5 microns in aerodynamic diameter and are a subset of PM_{10}. Particulates of concern are those that are 10 microns or less in diameter. These are small enough to be inhaled, pass through the respiratory system and lodge in the lungs, possibly leading to adverse health effects.

In the western United States, there are sources of PM_{10} in both urban and rural areas. Because particles originate from a variety of sources, their chemical and physical compositions vary widely. The composition of PM_{10} and $PM_{2.5}$ can also vary greatly with time, location, the sources of the material and meteorological conditions. Dust, sand, salt spray, metallic and mineral particles, pollen, smoke, mist, and acid fumes are the main components of PM_{10} and $PM_{2.5}$. In addition to those listed previously, secondary particles can also be formed as precipitates from chemical and photochemical reactions of gaseous sulfur dioxide (SO_2) and NO_X in the atmosphere to create sulfates and nitrates. Secondary particles are of greatest concern during the winter months where low inversion layers tend to trap the precursors of secondary particulates.

The Air Resources Board 2008 $PM_{2.5}$ Plan builds upon the aggressive emission reduction strategy adopted in the 2007 Ozone Plan and strives to bring the valley into attainment status for the 1997 NAAQS for $PM_{2.5}$. The 2008 $PM_{2.5}$ Plan indicates that all planned reductions (from the 2007 Ozone Plan and state standard.

The following new controls considered in the 2008 $PM_{2.5}$ Plan include:

- Tighter restrictions on residential wood burning and space heating;
- More stringent limits on $PM_{2.5}$, SO_2, and NO_X emissions from industrial sources;
- Measures to reduce emissions from prescribed burning and agricultural burning; and
- More effective work practices to control $PM_{2.5}$ in fugitive dust.

PM_{10} and $PM_{2.5}$ particles are small enough—about one-seventh the thickness of a human hair, or smaller—to be inhaled and lodged in the deepest parts of the lung where they evade the respiratory systems natural defenses. Health problems begin as the body reacts to these foreign particles. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis, and respiratory illnesses in children. Recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. Non-health-related effects include reduced visibility and soiling of buildings. PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. PM_{10} and $PM_{2.5}$ can aggravate respiratory disease and cause lung damage, cancer, and premature death.

Although particulate matter can cause health problems for everyone, certain people are especially vulnerable to adverse health effects of PM_{10}. These "sensitive populations" include children, the elderly, exercising adults, and those suffering from chronic lung disease such as asthma or bronchitis. Of greatest concern are recent studies that link PM_{10} exposure to the premature death of people who already have heart and lung disease, especially the elderly. Acidic PM_{10} can also damage manmade materials and is a major cause of reduced visibility in many parts of the United States.

CARB found PM_{10} levels in the SJVAB in attainment of federal standards and nonattainment for State standards and found $PM_{2.5}$ levels in the SJVAB in nonattainment of federal and State standards.

Carbon Monoxide

CO is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. CO is an odorless, colorless, poisonous gas that is highly reactive. CO is a byproduct of motor vehicle exhaust, contributes more than two thirds of all CO emissions nationwide. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. These emissions can result in high concentrations of CO, particularly in local areas with heavy traffic congestion. Other sources of CO emissions include industrial processes and fuel combustion in sources such as boilers and incinerators. Despite an overall downward trend in concentrations and emissions of CO, some metropolitan areas still experience high levels of CO.

CO enters the bloodstream and binds more readily to hemoglobin than oxygen, reducing the oxygen-carrying capacity of blood and thus reducing oxygen delivery to organs and tissues. The health threat from CO is most serious for those who suffer from cardiovascular disease. Healthy individuals are also affected but only at higher levels of exposure. At high concentrations, CO can cause heart difficulties in people with chronic diseases and can impair mental abilities. Exposure to elevated CO levels is associated with visual impairment, reduced work capacity, reduced manual dexterity, poor learning ability, difficulty performing complex tasks, and in prolonged, enclosed exposure, death.

The adverse health effects associated with exposure to ambient and indoor concentrations of CO are related to the concentration of carboxyhemoglobin in the blood. Health effects observed may include an early onset of cardiovascular disease; behavioral impairment; decreased exercise performance of young, healthy men; reduced birth weight; sudden infant death syndrome; and increased daily mortality rate.

Most of the studies evaluating adverse health effects of CO on the central nervous system examine high-level poisoning. Such poisoning results in symptoms ranging from common flu and cold symptoms (shortness of breath on mild exertion, mild headaches, and nausea) to unconsciousness and death.

CARB found CO levels in the SJVAB in attainment of federal standards and unclassified for State standards.

Nitrogen Dioxide

NO_x is a family of highly reactive gases, including nitrogen dioxide (NO_2), that are primary precursors to the formation of ground-level ozone and react in the atmosphere to form acid rain. NO_x is emitted from combustion processes in which fuel is burned at high temperatures, principally from motor vehicle exhaust and stationary sources such as electric utilities and industrial boilers. A brownish gas, NO_x is a strong oxidizing agent that reacts in the air to form corrosive nitric acid, as well as toxic organic nitrates.

NO_x is an ozone precursor that combines with ROG to form ozone. See the ozone section above for a discussion of the health effects of ozone.

Direct inhalation of NO_x can also cause a wide range of health effects. NO_x can irritate the lungs, cause lung damage, and lower resistance to respiratory infections such as influenza. Short-term exposures (e.g., less than 3 hours) to low levels of NO_2 may lead to changes in airway responsiveness and lung function in individuals with preexisting respiratory illnesses. These exposures may also increase respiratory illnesses in children. Long-term exposures to NO_2 may lead to increased susceptibility to respiratory infection and may cause irreversible alterations in lung structure. Other health effects associated with NO_x are an increase in the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may lead to eye and mucus membrane aggravation, along with pulmonary dysfunction. NO_x can cause fading of textile dyes and additives, deterioration of cotton and nylon, and corrosion of metals due to production of particulate nitrates. Airborne NO_x can also impair visibility. NO_x is a major component of acid deposition in California. NOx may affect both terrestrial and aquatic ecosystems. NO_x in the air is a potentially significant contributor to a number of environmental effects such as acid rain and eutrophication in coastal waters. Eutrophication occurs when a body of water suffers an increase in nutrients that reduce the amount of oxygen in the water, producing an environment that is destructive to fish and other animal life.

NO_2 is toxic to various animals as well as to humans. Its toxicity relates to its ability to combine with water to form nitric acid in the eye, lung, mucus membranes, and skin. Studies of the health impacts of NO_2 include experimental studies on animals, controlled laboratory studies on humans, and observational studies.

In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, lowering their resistance to such diseases as pneumonia and influenza. Laboratory studies show susceptible humans, such as asthmatics, exposed to high concentrations of NO_2 can suffer lung irritation and, potentially, lung damage. Epidemiological studies have also shown associations between NO_2 concentrations and daily mortality from respiratory and cardiovascular causes as well as hospital admissions for respiratory conditions.

NO_x contributes to a wide range of environmental effects both directly and when combined with other precursors in acid rain and ozone. Increased nitrogen inputs to terrestrial and wetland systems can lead to changes in plant species composition and diversity. Similarly, direct nitrogen inputs to aquatic ecosystems such as those found in estuarine and coastal waters can lead to eutrophication as discussed above. Nitrogen, alone or in acid rain, also can acidify soils and surface waters. Acidification of soils causes the loss of essential plant nutrients and increased levels of soluble aluminum, which is toxic to plants. Acidification of surface waters creates conditions of low pH and levels of aluminum that are toxic to fish and other aquatic organisms.

CARB found NO_2 levels in the SJVAB in attainment of federal and State standards.

Sulfur Dioxide

The major source of SO_2 is the combustion of high-sulfur fuels for electricity generation, petroleum refining, and shipping. High concentrations of SO_2 can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Short-term exposures of asthmatic individuals to elevated SO_2 levels during moderate activity may result in breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other effects that have been associated with longer-term exposures to high concentrations of SO_2, in conjunction with high levels of $PM_{2.5}$ and PM_{10}, include aggravation of existing cardiovascular disease, respiratory illness, and alterations in the lung's defenses. SO_2 also is a major precursor to $PM_{2.5}$, which is a significant health concern and a main contributor to poor visibility. In humid atmospheres, sulfur oxides can react with vapor to produce sulfuric acid, a component of acid rain.

CARB found SO_2 levels in the SJVAB as unclassified for federal standards and in attainment for State standards.

Lead

Lead, a naturally occurring metal, can be a constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, so it essentially persists forever. Lead was used until recently to increase the octane rating in automobile fuel. Since the 1980s, lead has been phased out in gasoline, reduced in drinking water, reduced in industrial air pollution, and banned or limited in consumer products. Gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels; however, the use of leaded fuel has been mostly phased out. Since this has occurred the ambient concentrations of lead have dropped dramatically.

Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children. Effects on the nervous systems of children are one of the primary health risk concerns from lead. In high concentrations, children can even suffer irreversible brain damage and death. Children 6 years old and under are most at risk, because their bodies are growing quickly.

CARB found lead levels in the SJVAB in attainment of federal and State standards.

Toxic Air Contaminants (TACs)

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination. The ten TACs are acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (diesel PM). Caltrans guidance for transportation studies references the Federal Highway Administration (FHWA) memorandum titled "Interim Guidance on Air Toxic Analysis in NEPA Documents" which discusses emissions quantification of six "priority" compounds of 21 Mobile Source Air Toxics (MSAT) identified by the EPA: diesel exhaust (particulate matter and organic gases), benzene, 1,3-butadiene, acetaldehyde, formaldehyde, and acrolein.

Some studies indicate that diesel PM poses the greatest health risk among the TACs listed above. A 10-year research program (CARB 1998) demonstrated that diesel PM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to diesel PM poses a chronic health risk. 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.

Diesel PM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although diesel PM 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 diesel PM because no routine measurement method currently exists. CARB has made preliminary concentration estimates based on a diesel PM exposure method. This method uses the CARB emissions inventory PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. **Table 3-7** depicts the CARB Handbook recommendation buffer distances associated with various types of common sources.

Existing air quality concerns within County and the entire SJVAB are related to increases of regional criteria air pollutants (e.g., ozone and particulate matter), exposure to toxic air contaminants, odors, and increases in GHG emissions contributing to climate change. The primary source of ozone (smog) pollution is motor vehicles. Particulate matter is caused by dust, primarily dust generated from construction and grading activities, and smoke which is emitted from fireplaces, wood-burning stoves, and agricultural burning.

Odors

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person to react to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another.

It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor.

Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

The intensity of an odor sources operations and its proximity to sensitive receptors influences the potential significance of odor emissions. The SJVAPCD has identified some common types of facilities that have been known to produce odors in the SJVAB. The types of facilities that are known to produce odors are shown in Table 8 along with a reasonable distance from the source within which, the degree of odors could possibly be significant. Information presented in **Table 3-7** will be used as a screening level of analysis for potential odor sources for the Project.

Table 3-7. Screening Levels for Potential Odor Sources

Screening Levels for Potential Odor Sources	
Type of Facility	**Distance**
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Compositing 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 shops)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile

SJVAPCD, 2015.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. Asbestos is commonly found in ultramafic rock and near fault zones. Asbestos typically makes up 1% up to approximately 25% and sometimes more of these rocks. It is released from ultramafic rock when the rock is broken or crushed. This can happen when cars drive over unpaved roads or driveways surfaced with these rocks, when land is graded for building purposes, or at quarrying operations. Asbestos is also released naturally through weathering and erosion. Once released from the rock, asbestos can become airborne and may stay in the air for long periods of time. Asbestos is hazardous and can cause lung disease and cancer dependent upon the level of exposure. The longer a person is exposed to asbestos and the greater the intensity of the exposure, the greater the chances for a health problem.

The Project construction phases may cause asbestos to become airborne due to the construction activities that would occur on site. In order to control naturally occurring asbestos dust, the project can use some of the following control actions to reduce the release of airborne asbestos fibers:

- Water wetting of road surfaces;

- Rinse vehicles and equipment;
- Wet loads of excavated material; and
- Cover loads of excavated material.

3.3.2 Methodology

An *Air Quality & Greenhouse Gas Impact Assessment* was completed by VRPA Technologies, Inc. in March 2019. The Assessment Report includes an Air Quality and Greenhouse Gas model completed in September 2017 using CalEEmod 2016.3.1. and is attached as **Appendix C**

The impact assessment for air quality focuses on potential effects the Project might have on air quality within the County region. The SJVAPCD has established thresholds for determining environmental significance. These thresholds separate a project's short-term emissions from its long-term emissions. The short-term emissions are mainly related to the construction phase of a project, which are recognized to be short in duration. The long-term emissions are primarily related to the activities that would occur indefinitely as a result of project operations. Impacts would be evaluated both on the basis of CEQA Appendix G criteria and SJVAPCD significance criteria. The impacts to be evaluated would be those involving construction and operational emissions of criteria pollutants.

CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use.

The model is an accurate and comprehensive tool for quantifying air quality impacts from land use projects throughout California. The model can be used for a variety of situations where an air quality analysis is necessary or desirable such as CEQA documents, NEPA documents, pre-project planning, compliance with local air quality rules and regulations, etc.

3.3.3 Criteria for Significance

According to CEQA, a project would normally have a significant adverse impact on air quality if it would "violate any ambient air quality standard, conflict with or obstruct implementation of an applicable Air Quality Plan (AQP), result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment, create substantial objectionable odors, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations.

For regional pollutants such as ozone, PM_{10}, sulfur dioxide, or nitrogen dioxide, the impact of new development cannot be predicted in terms of concentrations but is addressed in terms of changes in the regional burden of emissions.

For localized pollutants, such as carbon monoxide, an increase in concentrations that would result in a predicted violation of the most stringent State or federal standard (20.0 ppm for 1-hour or 9.0 ppm for 8-hours) is considered to represent a significant impact. This assessment provides for two types of localized area pollutant impact analysis; street and highway improvements and traffic volumes and construction impacts.

For purposes of this environmental assessment, an impact is considered significant if one or more of the following conditions occur from implementation of the Project:

- Regional air quality emission exceeds standards;

- Local air quality emission exceeds standards;
- Conflict/obstruct implementation of an applicable AQP;
- Result in a cumulatively considerable net increase of any criteria pollutant in non-attainment area;
- Significant construction related air quality impacts occur; and/or
- The creation of objectionable odors.

The SJVAPCD has established thresholds for certain pollutants shown in Table 9 of **Appendix C**

3.3.4 Regulatory Setting

Federal

United States Environmental Protection Agency (EPA)

The Clean Air Act (CAA), first adopted in 1967 and periodically amended since then, established federal ambient air quality standards. A 1987 amendment to the CAA sets a deadline for the attainment of these standards. That deadline has since passed. The other CAA Amendments, passed in 1990, share responsibility with the State in reducing emissions from mobile sources. The EPA is responsible for enforcing the 1990 amendments.

CAA and the national ambient air quality standards (NAAQS) identify levels of air quality for six "criteria" pollutants, which are considered the maximum levels of ambient air pollutants considered safe, with an adequate margin of safety, to protect public health and welfare. The six criteria pollutants include ozone, CO, NO_2, SO_2, $PM_{2.5}$ and PM_{10}, and lead (Pb). Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects such as visibility restrictions.

The CAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The 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. The EPA has responsibility to review all state SIPs to determine conformance with the mandates of the CAA, and the amendments thereof, and determine if implementation would achieve air quality goals. If the EPA determines a SIP to be inadequate, a Federal Implementation Plan may be prepared for the nonattainment area that imposes additional control measures.

CAA Section 176(c) (42 U.S.C. 7506(c)) and EPA transportation conformity regulations (40 CFR 93 Subpart A) require that each new Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) be demonstrated to conform to the State Implementation Plan (SIP) before the RTP and TIP are approved by the Metropolitan Planning Organization (MPO), in this case the County Association of Governments (TCAG) or accepted by the United States Department of Transportation (DOT). The conformity analysis is a federal requirement designed to demonstrate compliance with the NAAQS. However, because the San Joaquin Valley State Implementation Plan for CO, PM_{10}, $PM_{2.5}$ and ozone address attainment of both the State and federal standards for these pollutants, demonstrating conformity to the federal standards is also an indication of progress toward attainment of the State standards. Compliance with the California Ambient Air Quality Standards (CAAQS) is provided on the pages following this federal conformity discussion.

The EPA approved San Joaquin Valley reclassification of the ozone (8-hour) designation to extreme nonattainment in the Federal Register on May 5, 2010, even though the San Joaquin Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard. In accordance with the CAA, EPA uses the design value at the time of standard promulgation to assign nonattainment areas to one of several classes that

reflect the severity of the nonattainment problem; classifications range from marginal nonattainment to extreme nonattainment. In the Federal Register on October 26, 2015, the EPA revised the primary and secondary standard to 0.070 ppm to provide increased public health protection against health effects associated with long- and short-term exposures. The previous ozone standard was set in 2010 at 0.075 ppm.

National Environmental Policy Act

NEPA provides general information on the effects of federally funded projects. The act was implemented by regulations included in the 40 CFR 6. The code requires careful consideration concerning environmental impacts of federal actions or plans, including local projects that receive federal funds. The regulations address impacts on land uses and conflicts with state, regional, or local plans and policies, among others. They also require that projects requiring NEPA review seek to avoid or minimize adverse effects of proposed actions and to restore and enhance environmental quality as much as possible. The Project is subject to NEPA compliance because of the potential for federal grant funding for construction of the Project. The air quality assessment required under federal air quality standards and regulations covers the basic outline for project-level assessment under NEPA guidelines. The CAA also requires a parallel "Conformity" in addition to the basic impact assessment.

Toxic Substances Control Act

The Toxic Substances Control Act first authorized the EPA to regulate asbestos in schools and public and commercial buildings under Title II of the law, which is also known as the Asbestos Hazard Emergency Response Act (AHERA). AHERA requires Local Education Agencies to inspect their schools for Asbestos-Containing Building Materials and prepare management plans to reduce the asbestos hazard. The Act also established a program for the training and accreditation of individuals performing certain types of asbestos work.

National Emission Standards for Hazardous Air Pollutants

Pursuant to the CAA, the EPA established the National Emission Standards for Hazardous Air Pollutants. These are technology-based source-specific regulations that limit allowable emissions of Hazardous Air Pollutants (HAPs).

State

California Air Resources Board and the California Clean Air Act

The CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing its own air quality legislation called the California Clean Air Act (CCAA), adopted in 1988. CARB was created in 1967 from the merging of the California Motor Vehicle Pollution Control Board and the Bureau of Air Sanitation and its Laboratory.

CARB has primary responsibility in California to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by the EPA. Whereas CARB has primary responsibility and produces a major part of the SIP for pollution sources that are statewide in scope, it relies on the local air districts to provide additional strategies for sources under their jurisdiction. CARB combines its data with all local district data and submits the completed SIP to the EPA. The SIP consists of the emissions standards for vehicular sources and consumer products set by the CARB, and attainment plans adopted by the Air Pollution Control Districts (APCDs) and Air Quality Management Districts (AQMDs) and approved by CARB. The SJVAPCD is one of 35 AQMDs that have prepared air quality management plans to accomplish a five percent annual reduction in emissions documenting progress toward the CAAQS.

States may establish their own standards, provided the state standards are at least as stringent as the NAAQS. California has established the CAAQS pursuant to Health and Safety Code (HSC) Section 39606(b) and its predecessor statutes.

Health and Safety Code (HSC) Section 39608 requires CARB to "identify" and "classify" each air basin in the state on a pollutant-by-pollutant basis. Subsequently, the CARB designated areas in California as nonattainment based on violations of the CAAQS. Designations and classifications specific to the SJVAB can be found in the next section of this document. Areas in the state were also classified based on severity of air pollution problems. For each nonattainment class, the CCAA specifies air quality management strategies that must be adopted. For all nonattainment categories, attainment plans are required to demonstrate a five percent-per-year reduction in nonattainment air pollutants or their precursors, averaged every consecutive three-year period, unless an approved alternative measure of progress is developed. In addition, air districts in violation of CAAQS are required to prepare an Air Quality Attainment Plan (AQAP) that lays out a program to attain and maintain the CCAA mandates.

Other CARB duties include monitoring air quality. CARB has established and maintains, in conjunction with local APCDs and AQMDs, a network of sampling stations (called the State and Local Air Monitoring Stations [SLAMS] Network), which monitors the present pollutant levels in the ambient air.

All of Tulare County, including the City, is in the SJVAB. A map of the SJVAB is provided in **Appendix C**. **Table 3-8** contains a summary of State and federal air quality standards and the SJVABs attainment status for common pollutants.

CARB Mobile-Source Regulation

CARB is responsible for controlling emissions from the operation of motor vehicles in the state. Rather than mandating the use of specific technology or the reliance on a specific fuel, CARBs motor vehicle standards specify the allowable grams of pollution per mile driven. In other words, the regulations focus on the reductions needed rather than on the manner in which they are achieved. Towards this end, CARB has adopted regulations that require auto manufacturers to phase in less-polluting vehicles.

The CCAA was first signed into law in 1988 and is administered by CARB. The CCAA provides a comprehensive framework for air quality planning and regulation, and spells out, in statute, the States air quality goals, planning and regulatory strategies, and performance. The CAAQS, established pursuant to Health & Safety Code Section 39606(b), are similar to, but more stringent than, the NAAQS.

Table 3-8. Summary of Ambient Air Quality Standards

Summary of Ambient Air Quality Standards & Attainment Designation					
Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration*	Attainment Status	Primary	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm	Non- Attainment	–	Non-Attainment (Extreme)**
	8-hour	0.070 ppm		0.075 ppm	
Particulate Matter (PM_{10})	AAM	20 µg/m^3	Non-Attainment	–	Attainment
	24-hour	50 µg/m^3		150 µg/m^3	
Fine Particulate Matter ($PM_{2.5}$)	AAM	12 µg/m^3	Non-Attainment	12 µg/m^3	Non-Attainment
	24-hour	No Standard		35 µg/m^3	
Carbon Monoxide (CO)	1-hour	20 ppm	Attainment/ Unclassified	35 ppm	Attainment/ Maintenance
	8-hour	9 ppm		9 ppm	
	8-hour (Lake Tahoe)	6 ppm		–	
Nitrogen Dioxide (NO_2)	AAM	0.030 ppm	Attainment	0.053 ppm	Attainment/ Unclassified
	1-hour	0.18 ppm		0.100 ppb	
Sulfur Dioxide (SO_2)	AAM	–	Attainment	0.03 ppm	Attainment/ Unclassified
	24-hour	0.04 ppm		0.14 ppm	
	3-hour	–		--	
	1-hour	0.25 ppm		75 ppb	
Lead	30-day Average	1.5 µg/m^3	Attainment	–	No Designation/ Classification
	Calendar Quarter	–		1.5 µg/m^3	
	Rolling 3-Month Average	–		0.15 µg/m^3	
Sulfates	24-hour	25 µg/m^3	Attainment	No Federal Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)	Unclassified		
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m^3)	Attainment		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient: 0.23/km-visibility of 10 miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70%.	Unclassified		

** For more information on standards visit :http//www.arb.ca.gov.research/aaqs/aaqs2.pdf*
*** No federal 1-hour standard. Reclassified extreme nonattainment for the federal 8-hour standard May 5, 2010.*
****Secondary Standard*
Source: ARB 2015; SJVAPCD 2015

Assembly Bills 1807 & 2588 - Tanner Air Toxics Act

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as a TAC. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TACs. To date, CARB has identified more than 21 TACs and has adopted EPAs list of HAPs as TACs. Most recently, diesel PM was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure for sources that emit that particular TAC. CARB list of TACs is provided below:

- Benzene
- Ethylene Dibromide
- Ethylene Dichloride
- Hexavalent chromium
- Asbestos
- Dibenzo-p-dioxins and Dibenzofurans
- Cadmium
- Carbon Tetrachloride
- Ethylene Oxide
- Methylene Chloride
- Trichloroethylene
- Chloroform
- Vinyl chloride
- Inorganic Arsenic
- Nickel
- Perchloroethylene
- Formaldehyde
- 1,3-Butadiene
- Inorganic Lead
- Particulate Emissions from Diesel-Fueled Engines
- Environmental Tobacco Smoke
- EPA Hazardous Air Pollutants (187)

If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technology to minimize emissions.

California Assembly Bill 170

Assembly Bill 170, Reyes (AB 170), was adopted by state lawmakers in 2003 creating GC Section 65302.1 which requires cities and counties in the San Joaquin Valley to amend their general plans to include data and analysis, comprehensive goals, policies and feasible implementation strategies designed to improve air quality.

State Tailpipe Emission Standards

To reduce emissions from off-road diesel equipment, on-road diesel trucks, and harbor craft, CARB established a series of increasingly strict emission standards for new engines. New construction equipment used for the Project, including heavy duty trucks, off-road construction equipment, tugboats, and barges, would be required to comply with the standards.

Local

San Joaquin Valley Air Pollution Control District

The SJVAPCD is the agency responsible for monitoring and regulating air pollutant emissions from stationary, area, and indirect sources within the County and throughout the SJVAB. The District also has responsibility for monitoring air quality and setting and enforcing limits for source emissions. The CARB is the agency with the legal responsibility for regulating mobile source emissions. The District is precluded from such activities under State law.

The District was formed in mid-1991 and prepared and adopted the San Joaquin Valley AQAP, dated January 30, 1992, in response to the requirements of the CCAA. The CCAA requires each non-attainment district to reduce pertinent air contaminants by at least five percent (5%) per year until new, more stringent, 1988 State air quality standards are met.

Activities of the SJVAPCD include the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the CAA and the CCAA.

The SJVAPCD has prepared the 2013 Ozone Plan to achieve federal and State standards for improved air quality in the SJVAB regarding ozone. It provides a comprehensive list of regulatory and incentive-based measures to reduce emissions of ozone and particulate matter precursors throughout the SJVAB, and calls for major advancements in pollution control technologies for mobile and stationary sources of air pollution, a 75-percent reduction in ozone-forming oxides of nitrogen emissions, and addresses the remaining requirement under the 1979 revoked 1-hour ozone NAAQS.

The EPA in 2006 issued a Final Rule determining that the Basin had attained the NAAQS for PM_{10}, it did however note that the Final Rule did not constitute a redesignation to attainment until all of the CAA requirements under Section 107(d)(3) were met. In response, the SJVAPCD prepared the 2007 PM_{10} Maintenance Plan and Request for Redesignation (2007 PM_{10} Plan). The SJVAPCD has prepared the 2012 $PM_{2.5}$ Plan to achieve federal and State standards for improved air quality in the SJVAB. The 2012 $PM_{2.5}$ Plan provides a comprehensive list of regulatory and incentive-based measures to reduce $PM_{2.5}$.

The Guide for Assessing and Mitigation Air Quality Impacts was prepared in 2015, which is an advisory document that provides Lead Agencies, consultants, and project applicants with analysis guidance and uniform procedures for addressing air quality impacts in environmental documents. It describes the criteria that SJVAPCD uses when reviewing and commenting on the adequacy of environmental documents and recommends thresholds for determining whether or not projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts.

The SJVAPCD documents identified above represent the SJVAPCDs plan to achieve both State and federal air quality standards. The regulations and incentives contained in these documents must be legally enforceable and permanent. These plans separate emissions reductions and compliance into different emissions source categories. The SJVAPCD Rules and Regulations that are applicable to the Project include, but are not limited to, the following:

- Regulation VIII (Fugitive Dust Prohibitions), Regulation VIII (Rules 8011-8081): This regulation is a series of rules designed to reduce particulate emissions generated by human activity, including construction and demolition activities, carryout and trackout, use of paved and unpaved roads and traffic areas, bulk material handling and storage, open space areas, etc. If a non-residential area is five or more acres in size, a Dust Control Plan must be submitted as specified in Section 6.3.1 of Rule 8021. Additional requirements may apply, depending on total area of disturbance.
- Rule 8021 – Construction, Demolition, Excavation, and Other Earthmoving Activities: District Rule 8021 requires owners or operators of construction projects to submit a Dust Control Plan to the District if at any time the project involves non-residential developments of five or more acres of disturbed surface area or moving, depositing, or relocating of more than 2,500 cubic yards per day of bulk materials on at least three days of the project. The Project will meet these criteria and will be required to submit a Dust Control Plan to the District in order to comply with this rule.
- Rule 9510 – Indirect Source Review: Rule 9510, *Indirect Source Review* (ISR), fulfills the SJVAPCD emission reduction commitments in the PM_{10} and Ozone Attainment Plans through emission reductions associated with construction and operational activities for projects subject to the rule. Since the project contains more than 20,000 square feet of recreational space it will be required to comply with Rule 9510. Compliance with Rule 9510 is separate from the CEQA process, although the control measures used to comply with Rule 9510 may be used to mitigate CEQA impacts.

- Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations: If asphalt paving will be used, then paving operations of the Project will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt, and emulsified asphalt for paving and maintenance operations.

- Regulatory Attainment Designations: Under the CCAA, CARB is required to designate areas of the state as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data does not support either an attainment or nonattainment designation. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

  The EPA designates areas for ozone, CO, and NO_2 as "does not meet the primary standards," "cannot be classified," or "better than national standards." For SO_2, areas are designated as "does not meet the primary standards," "does not meet the secondary standards," "cannot be classified," or "better than national standards." However, CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The EPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, EPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM_{10} based on the likelihood that they would violate national PM_{10} standards. All other areas are designated "unclassified."

  The SJVAB is currently designated as a nonattainment area with respect to the state PM_{10} standard, ozone, and $PM_{2.5}$ standards. The SJVAB is designated nonattainment for the national 8-hour ozone and $PM_{2.5}$ standards. On September 25, 2008, the EPA redesignated the San Joaquin Valley to attainment for the PM_{10} NAAQS and approved the PM_{10} Maintenance Plan.

Table 3-9 shows the SJVAPCD thresholds of significance for both construction- and operation-related emissions from a given project.

Table 3-9. SJVAPCD Thresholds of Significance

SJVAPCD Thresholds of Significance (tons/yr)		
Pollutant	**Construction Emissions**	**Operation Emissions**
ROG	10	10
NO_x	10	10
CO	100	100
SO_x	27	27
PM_{10}	15	15
$PM_{2.5}$	15	15

Source: SJVAPCD, May 2015.

City of Visalia General Plan

- Policy AQ-P-2: Require use of Best Management Practices (BMPs) to reduce particulate emission as a condition of approval for all subdivisions, development plans and grading permits, in conformance with the San Joaquin Valley Air Pollution Control District Fugitive Dust Rule.

- Policy AQ-P-9: Continue to mitigate short-term construction impacts and long-term stationary impacts on air quality on a case-by-case basis and continue to assess air quality impacts through environmental review. Require developers to implement BMPs to reduce air pollutant emissions associated with the construction and operation of development projects.

City of Visalia Climate Action Plan

The City Climate Action Plan (CAP) was created as one of the first key steps to guiding the development and enhancement of actions designed to reduce Visalia's GHG emissions. The CAP represents the results of a GHG emissions inventory effort which serves as a starting point for the development of a comprehensive municipal and community strategy for addressing GHG emission reduction goals.

The major long-term objectives of the City's CAP for the City government and the community as a whole include the following:

- Reduce net GHG emissions from both municipal operations and community activities;
- Promote cleaner and healthier air to breathe;
- Help the City and its residents save on energy costs;
- Reduce vulnerability to changes in energy availability and price; and
- Increase public awareness of climate change issues.

The City selected the years 2020 and 2030 to establish mitigation targets for the CAP. A reduction of 15% below the 2005 baseline year level was the target for 2020. A reduction of 30% below the 2005 baseline year level is the target for 2030. The City established two mitigation milestones to correlate with the planning horizon of the 2030 General Plan Update, and to ensure that the City is working towards the States goal of an 80% reduction below baseline by 2050.

The City has instituted various actions in an effort to meet the year 2020 and 2030 mitigation targets. The measures identified to achieve mitigation targets are organized into five categories: Energy Systems, Transportation, Water and Resource Conservation, Transportation / Land Use, and Waste and Resource Conservation. Included in the Transportation category is a measure regarding the expansion of bicycle paths. The Project includes the development of multi-use trails which coincides with the goals of the CAP.

3.3.5 Impact Assessment

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. The primary way of determining consistency with an AQP is to determine a projects consistency with the applicable General Plan. This ensures that the projects population density and land use are consistent with the growth assumptions used in the AQPs for the air basin. As this Project requires a General Plan Amendment, the following criteria for determining Project consistency with the current AQPs are as follows:

1. Would the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs?
2. Would the project comply with applicable control measures in the AQPs?

Regional air quality impacts and attainment of standards are the result of cumulative impacts of all emission sources within the air basin. Individual projects are generally not large enough to contribute measurably to an existing violation of air quality standards. Therefore, the cumulative impact of the Project is based on its cumulative contribution. Because of the regions non-attainment status for ozone, $PM_{2.5}$, and $PM_{10,}$ if Project generated emission of either of the ozone precursor pollutants ROG, NO_x, PM_{10}, or $PM_{2.5}$ would exceed the SJVAPCDs significance thresholds, then the Project would be considered to contribute to violations of the applicable standards and conflict with the attainment plans. As demonstrated in **Table 3-8** and **Table 3-9**,

Project emissions of criteria pollutants would not exceed the SJVAPCDs significance thresholds. Therefore, the Project would not contribute to air quality violations in conflict with attainment plans.

The AQP contains a number of control measures, including Regulation VII-Fugitive PM_{10} Prohibitions and Rule 9510 ISR which are applicable to the Project. Regulation VII-Fugitive PM_{10} Prohibitions and Rule 9510 ISR are adopted rules and regulations that constitute enforceable requirements with which the project must comply. The Project would comply with all applicable SJVAPCD rules and regulations; therefore, the Project complies with the criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plans. As a result, the Project would not conflict with or obstruct implementation of any AQP. Therefore, there would be a less than significant impact.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact.

Short-Term Impacts

The analysis of construction impacts assumes that Phases 1, 2, and 3 of the Project would be constructed independently of each other and the periods of construction would not overlap. As shown in **Table 3-10,** the annual emissions from the construction phase of Phase 1, 2, and 3 of the Project would be less than the applicable SJVAPCD emission thresholds for criteria pollutants. The construction emissions are therefore considered less than significant with the compliance to the SJVAPCD applicable Regulation VIII control measures, which are provided below. If Phase 1, 2, or 3 of the Project is constructed simultaneously with another phase, the SJVAPCD threshold for NO_x emissions would be exceeded.

1. All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
2. All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
3. All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
4. When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
5. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.
6. Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
7. Within urban areas, track out shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.

Naturally Occurring Asbestos (NOA)

The Project construction phases, particularly activities involving earthmoving, may cause asbestos to become airborne. In order to control naturally occurring asbestos dust, the Project would be required to submit a Dust Control Plan under SJVAPCD Rule 8021. The Dust Control Plan may include the following measures:

1. Water wetting of road surfaces
2. Rinse vehicles and equipment
3. Wet loads of excavated material
4. Cover loads of excavated material

Long-Term Impacts

Emissions from long-term operations generally represent a projects most substantial air quality impact. Long-term emissions from the Project are generated primarily by mobile source (vehicle) emissions related to operational activities (i.e., vehicle trips by those driving to and from the site) and area sources such as lawn and facility maintenance equipment. **Table 3-11** delineates operational emissions by phase. **Appendix C** contains Tables 12, 13, 14, 15, and 16 summarize the operational impacts by pollutant. Results show that Project operational emissions would not exceed applicable emission thresholds. Therefore, Project long-term emissions would be considered less than significant.

Construction-Related Emissions

Table 3-10. Maximum Unmitigated Project Construction Related Emissions

Maximum Unmitigated Project Construction-Related Emissions					
Pollutant	Construction Emissions (tons/yr)				
	Phase 1	Phase 2	Phase 2 Tower Street	Phase 3	SJVAPCD Thresholds of Significance
ROG	0.86	0.64	0.28	1.71	10
NO_x	6.82	6.87	2.89	7.44	10
CO	5.52	3.89	2.31	4.31	100
SO_x	0.01	0.01	0.00	0.01	27
PM_{10}	1.37	1.20	1.42	2.79	15
$PM_{2.5}$	0.77	0.72	0.39	1.47	15

*Source: CalEEMod 2016.3.1., March 2019 (see **Appendix C**)*

Operational Emissions

Table 3-11. Maximum Unmitigated Project Operation-Related Net Emissions

Maximum Unmitigated Project Operational-Related Net Emissions				
Pollutant	Operational Emissions (tons/yr)			
	Phase 1	Phase 2	Phase 3	SJVAPCD Thresholds of Significance
ROG	0.04	0.83	0.99	10
NO_x	0.00	2.79	4.58	10
CO	0.00	0.00	0.00	100
SO_x	0.00	0.01	0.02	27

Maximum Unmitigated Project Operational-Related Net Emissions				
Pollutant	Operational Emissions (tons/yr)			
	Phase 1	Phase 2	Phase 3	SJVAPCD Thresholds of Significance
PM_{10}	0.00	0.00	0.00	15
$PM_{2.5}$	0.00	0.00	0.00	15

*Source: CalEEMod 2016.3.1., March 2019 (see **Appendix C**)*

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant Impact. County is nonattainment for Ozone (1 hour and 8 hour) and PM_{10} (State standards) and $PM_{2.5}$. The SJVAPCD has prepared the 2013 Ozone Plan, 2007 PM_{10} Maintenance Plan, and 2012 $PM_{2.5}$ Plan to achieve federal and State standards for improved air quality in the SJVAB regarding ozone and PM. Inconsistency with any of the plans would be considered a cumulatively adverse air quality impact. As discussed in a), the Project does not obstruct implementation of these plans.

As described in b) above, impacts related to construction and operational emissions would be less than significant. In addition, results of the CALINE analysis (Section 3.3.2 of **Appendix C**) show that the intersections of Lovers Lane and Mineral King Avenue, McAuliff Street and Mineral King Avenue, and Road 156 and Noble Avenue are expected to generate CO concentrations that would not exceed the federal or State 1-hour and 8-hour standards. Further, as indicated in Section 3.3.2 of **Appendix C**, the Project would not create objectionable odors affecting a substantial number of people. The Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard. Therefore, any impacts would be less than significant.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

No Impact. Sensitive receptors refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing health problems affected by air quality). Land uses that have the greatest potential to attract these types of sensitive receptors include schools, parks, playgrounds, daycare centers, nursing homes, hospitals, and residential communities. From a health risk perspective, the Project is a Type B Project in that it may potentially place sensitive receptors in the vicinity of existing sources.

The first step in evaluating the potential for impacts to sensitive receptors for TACs from the Project is to perform a screening level analysis. For Type B Projects, one type of screening tool is found in the CARB Handbook: Air Quality and Land Use Handbook: A Community Perspective. This handbook includes a table (depicted in Table 4 of **Appendix C**) with recommended buffer distances associated with various types of common sources. The screening level analysis for the Project shows that TACs are not a concern. An evaluation of nearby land uses completed by VRPA showed that the Project would not place sensitive receptors in the vicinity of existing toxic sources. Since the Project is located outside the recommended buffer distances associated with the sources found in **Appendix C** Table 4, the Project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, there would be no impact.

e) Would the project create objectionable odors affecting a substantial number of people?

Less than Significant Impact. The SJVAPCD requires that an analysis of potential odor impacts be conducted for the following two situations:

- Generators – projects that would potentially generate odorous emissions proposed to be located 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 located near existing odor sources.

The Project would not generate odorous emissions but would attract people to its site for recreational activities. The Double D Dairy, LLC is located approximately 0.7 miles northeast of the Project site, which is less than the one (1) mile screening distance provided in **Table 3-7**. However, analysis pursuant to CEQA must address whether a project would unduly affect existing receptors, not whether existing conditions would affect a project. As a result, the Project would not be evaluated for its potential to place sensitive receptors near existing odor sources.

The intensity of an odor sources operations and its proximity to sensitive receptors influences the potential significance of odor emissions. As shown in **Table 3-7** the SJVAPCD has identified some common types of facilities that have been known to produce odors in the SJVAB along with a reasonable distance from the source within which the degree of odors could possibly be significant. Regional parks and groundwater recharge basins are not among those listed facilities.

Based on the assessment above, the Project would not generate potential odorous emissions. Therefore, any impacts would be less than significant.

3.3.6 Cumulative Impacts

Less than Significant Impact. Automobiles, trucks, buses, and other vehicles using hydrocarbon fuels release exhaust products into the air. Each vehicle by itself does not release large quantities; however, when considered as a group, the cumulative effect is significant.

Traffic forecasts for Existing Plus Project (Phase 3 - Full Build) and Cumulative Year 2040 With and Without Project (Phase 3 - Full Build) conditions were used in the CALINE analysis by VRPA Technologies, Inc. to determine CO concentrations under worst case conditions (**Appendix C**). The Project would not exceed federal or State standards for Phase 1 or Phase 2 of the Project given the assessment of Phase 3 operations; therefore, cumulative impacts of criteria pollutants generated by the Project would be less than significant.

As noted in Impact Analysis c) above, inconsistency with any of the plans would be considered a cumulatively adverse air quality impact. The Project would not obstruct implementation of AQP's; therefore, the Project is consistent with the assumptions used in the 2013 Ozone Plan, 2007 PM_{10} Maintenance Plan, and 2012 $PM_{2.5}$ Plan.

3.4 Biological Resources

Table 3-12. Biological Resources

Biological Resources				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. 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, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
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?	☐	☐	☐	☒

3.4.1 Environmental Setting

A site-specific biological evaluation was prepared by Live Oak Associates, Inc., a qualified biological consulting firm. The biological evaluation consisted of field surveys conducted on December 29 and 30, 2014 and a report dated June 6, 2019. On May 13, 2022, Live Oak Associates, Inc. biologist Jeff Gurule performed a new field survey to document current site conditions. A biological evaluation update letter dated June 27, 2022 has been prepared to reflect the May 2022 field survey. The contents of the biological evaluation report and the update letter, attached as **Appendix D**, are the primary source for the description of the environmental setting and impact assessment.

The area of potential effect (APE) is located in a portion of the central San Joaquin Valley that has, for decades, experienced intensive agricultural and urban disturbances. Current agricultural endeavors in the region include

orchards, row crops, and dairies. The APE lies east and north of the City, and is surrounded by agricultural lands, rangeland, residential and commercial areas.

Like most of California, the central San Joaquin Valley has a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures commonly exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely rise much above 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit. Annual precipitation within the Project site is about 10.93 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain. Stormwater readily infiltrates the soils of and surrounding the Project site.

The three water conveyance channels that traverse the site are Mill Creek, Packwood Creek, and Oakes Ditch. These waterways historically contained large areas of riparian, wetland, and aquatic ecosystems that supported large populations of diverse native plants and animals. An historic aerial photo from 1937 is presented as Figure 4 of the Biological Evaluation Report **Appendix D**. However, at present these waterways support only a fraction of the riparian habitats they once did, and aquatic habitats have been greatly degraded as a result of agricultural runoff and controlled flows. In essence, these waterways have been reduced to distributary channels of the Kaweah River supplying water to farmland in the region. Tulare Lake has long been drained and converted to farmland and urban uses.

Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persevere in the region.

3.4.2 Methodology

The analysis of impacts, as discussed in this report, is based on the Sources of information used in the preparation of this analysis included: (1) the California Department of Fish and Wildlife (CDFW)*California Natural Diversity Database*, (2) the *Online Inventory of Rare and Endangered Vascular Plants of California*, and (3) manuals, reports, and references related to plants and animals of the San Joaquin Valley region. Reconnaissance-level field surveys of the Project site were conducted on December 29 and 30, 2014 by Live Oak Associates ecologists. These surveys consisted of walking or driving through accessible portions of the Project site, scanning non-accessible areas and surrounding lands with binoculars, identifying the principal land uses of each site, identifying constituent plants and animals of each land use type, and mapping habitat suitable for special status species and other sensitive biological resources. (See **Appendix D**)

Comprehensive protocol level surveys for sensitive biological resources were not conducted for this study. Field surveys conducted for this study were sufficient to assess the significance of potential biological impacts associated with the development of the Project site with water storage, regulation facilities, irrigation infrastructure, active and passive park uses and related amenities, a dog park, and maintenance yards and to assess the need for more detailed studies that could be warranted if potentially sensitive biotic resources were identified in this initial biological evaluation.

3.4.3 Regulatory Setting

Federal

Endangered Species Act

The Endangered Species Act (ESA) administered by the United States Fish and Wildlife Service (USFWS) protects fish and wildlife species and their habitats that have been identified by the USFWS as threatened or endangered. Endangered refers to species, subspecies, or distinct population segments that are in danger of

extinction through all or a significant portion of their range. Threatened refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future.

Due to the potential for the City to obtain federal grant funding for the Project, Sections 7 and 9 of the ESA may be relevant. Provisions of Sections 7 and 9 are summarized below.

- Section 7: Section 7 of the ESA provides a means for authorizing incidental take of threatened and endangered species by federal agencies. "Take" as defined by ESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct". "Harm" is defined as "any act that kills or injures the species, including significant habitat modification." Under Section 7, the federal agency funding, permitting, or conducting an action [the lead federal agency, such as the United States Army Corps of Engineers (USACE)] must consult with USFWS to ensure that the proposed action would not jeopardize endangered or threatened species or destroy or adversely modify designated critical habitat. If a Project "may affect" a listed species or designated critical habitat, the federal lead agency is required to prepare a biological assessment (BA) evaluating the nature and severity of the expected effect. In response, the USFWS issues a biological opinion (BO), with a determination whether the proposed action either:
    - Would jeopardize the continued existence of one or more listed species (jeopardy finding) or result in the destruction or adverse modification of critical habitat (adverse modification finding), or
    - Would not jeopardize the continued existence of any listed species (no jeopardy finding) or result in adverse modification of critical habitat (no adverse modification finding).

  The biological opinion issued by the USFWS may stipulate discretionary "reasonable and prudent" conservation measures. If the project would not therefore jeopardize a listed species, the USFWS issues an incidental take statement to authorize the proposed activity.
- Section 9: Section 9 of the ESA prohibits the take of any fish or wildlife species listed as endangered under the ESA by any person subject to the jurisdiction of the United States. Take of threatened species also is prohibited under Section 9, unless otherwise authorized by federal regulations. In some cases, exceptions may be made for threatened species under ESA Section 4[d]; in such cases, the USFWS issues a "4[d] rule" describing protections for the threatened species and specifying the circumstances under which take is allowed. In addition, Section 9 prohibits removing, digging up, cutting, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction.

Clean Water Act

The Clean Water Act (CWA) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharge of pollutants to waters of the United States (WOTUS). The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands.

The CWA empowers the EPA to set national water quality standards and effluent limitations and includes programs addressing both point-source and nonpoint-source pollution. Point-source pollution is pollution that originates or enters surface waters at a single, discrete location, such as an outfall structure or an excavation or construction site. Nonpoint-source pollution originates over a broader area and includes urban contaminants in stormwater runoff and sediment loading from upstream areas. The CWA operates on the principle that all discharges into the nations waters are unlawful unless specifically authorized by a permit; with permit review being the CWAs primary regulatory tool. The following sections provide additional details on specific sections of the CWA.

- Section 404: CWA Section 404 regulates the discharge of dredged and fill materials into WOTUS. In 2020, the EPA and USACE published the Navigable Water Protection Rule defining the jurisdiction

of what is considered WOTUS. WOTUS jurisdiction applies to navigable waters and includes four categories of water: territorial seas and traditional navigable water; tributaries of such waters; certain lakes, ponds, and impoundments of jurisdictional waters; and wetlands adjacent to other jurisdictional waters. The new rule also defines what is not considered WOTUS. The rule provide that groundwater is not a jurisdictional water and explicitly excludes ephemeral features that flow only in direct response to precipitation, diffuse stormwater runoff, ditches, prior converted cropland, artificially irrigated water or lakes, water-filled depressions constructed or excavated incidental to mining or construction activities, and water filled pits excavated for the purpose of obtaining fill, sand, or gravel.

As determined by the United States Supreme Court in the 2001 *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*, 121 S.CT. 675, 2001, (commonly referred to as the "SWANCC" decision) " Based on SWANCC, the USACE no longer has jurisdiction or regulates isolated wetlands that have no hypothetical or observed hydrologic connection with a WOTUS).

A June 19, 2006, federal ruling on two consolidated cases (*Rapanos v. United States*[9] and *Carabell v. United States Army Corps of Engineers*[10]), often referred to as the Rapanos decision, affects whether adjacent waters or wetlands are considered jurisdictional under the CWA. The directive of the court follows the opinion by Justice Anthony Kennedy, which states that the test for waters of the United States should be determined on a case-by-case basis by USACE on the basis of whether a particular water body has "significant nexus" to navigable waters.

Applicants must obtain a permit from the USACE for all discharges of dredged or fill material into waters of the United States, including adjacent wetlands, before proceeding with a proposed activity. The USACE may issue either an individual permit evaluated on a case-by-case basis, or a Nationwide general permit (NWP) evaluated at a program level for a series of related activities. NWP are preauthorized activities that have been determined to cause only minimal adverse environmental effects. Each NWP provides specific conditions that must be met for the NWP to apply to a project. Potential WOTUS found within the project area would be under the jurisdiction of the Sacramento District of the USACE.

Compliance with CWA Section 404 requires compliance with several other environmental laws and regulations. The USACE cannot issue an individual permit or verify the use of a NWP until the requirements of the NEPA, ESA, and the National Historic Preservation Act (NHPA) have been met. In addition, the USACE cannot issue or verify any permit until a CWA Section 401 water quality certification or a waiver of certification has been issued. This is discussed further below.

- Section 402: CWA Section 402 regulates construction-related stormwater discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program, administered by the EPA. In California, the State Water Resources Control Board (SWRCB) has authority to oversee the NPDES program and is implemented through the Regional Water Quality Control Boards (RWQCBs) (see further related discussions under "Porter-Cologne Water Quality Control Act" below). The APE would be under the jurisdiction of the Central Valley RWQCB.

  NPDES permits are required for projects that disturb one (1) acre or more of land. The NPDES permitting process requires the applicant to file a NOI to discharge stormwater and prepare and implement a stormwater pollution prevention plan (SWPPP). The SWPPP includes a site map and a description of proposed construction activities. In addition, it describes the BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants (e.g.,

[9] Rapanos v. United States. 04-1034, Rapanos v. United States (supremecourt.gov)
[10] Carabell v. United States Army Corps of Engineers. CARABELL v. UNITED STATES ARMY CORPS OF ENGINEERS | FindLaw

petroleum products, solvents, paints, and cement) that may contaminate nearby water resources. Permittees are required to conduct annual monitoring and reporting to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants.

- Section 401: In 2020, California regulations protecting wetland and state waters were approved by the SWRCB and have updated defined procedures for discharges of dredge or fill material to waters of the State. The new procedures consist of four major elements: a wetland definition; framework for determining if a feature meets the wetland definition; delineation procedures; and procedures for the submittal, review and approval of applications for water quality certification and waste discharge requirements (WDRs). Discharges into waters of the State that are also waters of the United States require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining certain federal permits, such as a CWA Section 404 permit. Waters of the State also include wetlands Discharges into all waters of the State, even those that are not also Waters of the United States, may require WDRs, or waivers of WDRs, from the RWQCB.

Executive Order 13186 – Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), 16 USC 703–711, prohibits the take of any migratory bird or any part, nest, or eggs of any such bird.[11] Under the act, "take" is defined as the action of or attempt to "pursue, hunt, shoot, capture, collect, or kill". This act applies to all persons and agencies in the United States, including federal agencies.

Executive Order 13186 requires that any project with federal funding, permitting, or action must address the impacts of the project on migratory birds. The order is designed to assist federal agencies in their efforts to comply with the MBTA and does not constitute any legal authorization to take migratory birds. The order also requires federal funding, permitting, or action-taking agencies to work with the USFWS to develop a memorandum of understanding (MOU). Protocols developed under the MOU must promote the conservation of migratory bird populations through:

- Avoiding and minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions;
- Restoring and enhancing the habitat of migratory birds, as practicable; and
- Preventing or abating the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.

Executive Order 13112: Invasive Species

EO 13112, signed February 3, 1999, directs all federal agencies to prevent and control the introduction of invasive species in a cost-effective and environmentally sound manner. The EO requires consideration of invasive species in NEPA analyses, including their identification and distribution, their potential effects, and measures to prevent or eradicate them.

Executive Order 11990: Protection of Wetlands

Executive Order 11990, signed May 24, 1977, directs all federal agencies to refrain from assisting in or giving financial support to projects that encroach on publicly or privately-owned wetlands. It further requires that federal agencies support a policy to minimize the destruction, loss, or degradation of wetlands.

[11] Executive Order 13186, 2001. Responsibilities of Federal Agencies to Protect Migratory Birds. Federal Register. Vol. 66, No. 11. https://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-EO13186migratorybirds.pdf Date Accessed: 11/6/2017.

State

California Environmental Quality Act (CEQA)

CEQA is the regulatory framework by which California public agencies identify and mitigate significant environmental impacts. The CEQA statute is set forth in Public Resources Code Section 21000, et seq. and the Guidelines implementing the Act (State CEQA Guidelines) are set forth in the California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000, et seq. A project normally is considered to result in a significant environmental impact on biological resources if it substantially affects a rare or endangered species or the habitat of that species, substantially interferes with the movement of resident or migratory fish or wildlife, or substantially diminishes habitat for fish, wildlife, or plants.

California Endangered Species Act (CESA)

California implemented the California Endangered Species Act (CESA) in 1984. The Act prohibits the take of endangered and threatened species; however, habitat destruction is not included in the States definition of take. Under CESA, "take" is defined as an activity that would directly or indirectly hunt, pursue, catch, capture, or kill an individual of a species. Section 2090 of CESA requires State agencies to comply with endangered-species protection and recovery and promote conservation of these species. CDFW administers the act and authorizes take through Section 2081 agreements (except for species designated as fully protected). Regarding rare plant species, CESA defers to the California Native Plant Protection Act of 1977, which preserves, protects, and enhances rare and endangered plant species and prohibits importing/exporting or the sale of rare and endangered plants. All State plants that have been designed as rare, threatened, endangered, or listed as a candidate or species of special concern are protected. In addition to federal and State protection the California Native Plant Society (CNPS) has a ranking system that places native plants into categories or ranks reflecting degrees of concern and which also needs to be addressed during CEQA review.

Porter-Cologne Water Quality Control Act

Water Code Section 13260 requires "any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)". Under the Porter-Cologne definition, the term "waters of the State" (as distinguished from Waters of the United States) is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state". The SWANCC ruling and Rapanos decision, described above, have no bearing on the Porter-Cologne definition. Although all waters of the United States that are within the borders of California are also waters of the State, the converse is not true (i.e., in California, waters of the United States represent a subset of waters of the state). Thus, California retains authority to regulate discharges of waste into any waters of the state, regardless of whether the USACE has concurrent jurisdiction under CWA 404.

If the USACE determines a wetland is not subject to regulation under CWA 404, CWA 401 water quality certification is not required. However, the RWQCB may impose WDRs if fill material is placed into waters of the state.

California Fish and Game Code

- Section 1602: Under Fish and Game Code Section 1602, public agencies are required to notify CDFW before undertaking any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review occur generally during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resources. These modifications are formalized in a streambed-alteration agreement that becomes part of the plans, specifications, and bid documents for the project.

- Sections 3503 and 3503.5: Fish and Game Code Section 3503 prohibits the destruction of bird nests. Section 3503.5 prohibits the killing of raptor species and the destruction of raptor nests.
- Section 3511 (Fully Protected Birds): The Fish and Game Code provides protection from take for a variety of species of birds, referred to as fully protected species. Section 3511 lists fully protected birds and prohibits take of these species. The Fish and Game Code defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill". Except for take related to scientific research, all take of fully protected species of birds is prohibited.

California Oak Woodlands Conservation Act

The California Oak Woodlands Conservation Act was enacted in 2001 to protect oak woodland habitats that were being diminished due to development, firewood harvesting, and agricultural conversions.[12] The Oak Woodlands Conservation Program was established as a result of the act and is intended to provide project funding opportunities for private landowners, conservation organizations, and cities and counties to conserve and restore oak woodlands. The program authorizes the Wildlife Conservation Board to purchase oak woodland conservation easements and provide grants for land improvements and oak restoration efforts. The Planning Area contains a large stand of California Valley Oak Woodland and also contains scattered oak woodland stands that have been preserved throughout the City.

Local

City of Visalia General Plan Update

- Objective OSC-O-10: Protect and enhance natural vegetation throughout the Planning Area, especially types that are considered sensitive natural communities by the Department of Fish and Game [sic].
    - Policy OSC-P-28: Protect significant stands of Valley Oak woodlands from further development by designating them for Conservation, creating habitat management plans, where needed, and undertaking restoration activities as appropriate.
    - Policy OSC-P-30: Require assessments of biological resources prior to approval of any discretionary development projects involving riparian habitat, wetlands, or special status species habitat. Early in the development review process, consult with California Department of Fish and Game, U.S. Fish and Wildlife Service, and other agencies.
    - Policy OSC-P-31: Protect and enhance habitat for special status species, designated under state and federal law. Require protection of sensitive habitat areas and special status species in new development in the following order: (1) avoidance; (2) on-site mitigation, and (3) off-site mitigation.

City of Visalia Oak Tree Preservation Ordinance

The City has a valley oak (*Quercus lobate*) tree ordinance that protects valley oak trees with a diameter at breast height of two (2) inches or greater. Under this ordinance, removal or encroachment within the dripline of or damage to valley oak trees is prohibited. Removal requires a permit from the City Manager and mitigation either by replacement in-kind or payment of an in-lieu fee to be used for future oak tree planting.[13]

[12] California Wildlife Conservation Board. https://wcb.ca.gov/Programs/Oaks Date Accessed: 11/6/2017.
[13] City of Visalia, Valley Oak Ordinance.
http://www.visalia.city/depts/parks_n_recreation/urban_forestry/valley_oak_ordinance_.asp Date Accessed: 11/27/2017

3.4.4 Impact Assessment

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. As described in **Appendix D**, several species of plants and animals within California have low populations and/or limited distributions. Such species may be considered "rare" and are vulnerable to extirpation as the State's human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, State and federal laws have provided CDFW and USFWS with a mechanism for conserving and protecting the diversity of plant and animal species native to the State. A sizable number of native plants and animals have been formally designated as "threatened" or "endangered" under State and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as "species of special concern" by CDFW. CNPS has developed its own set of lists of native plants considered rare, threatened, or endangered. Collectively, these plants and animals are referred to as "special status species". (See **Appendix D**)

The California Natural Diversity Database (CNDDB) was queried for special status species occurrences in the nine USGS 7.5-minute quadrangles containing and immediately surrounding the Project Site (*Exeter, Visalia, Monson, Ivanhoe, Woodlake, Rocky Hill, Lindsay, Cairns Corner,* and *Tulare*). An official species list was obtained using the USFWS Information for Planning and Conservation (IPaC) system for federally listed species with the potential to be affected by the Project (USFWS 2016). These species, and their potential to occur on the Project site, are listed in **Table 3-13** and **Table 3-14** on the following pages and identified in **Appendix D**. Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et. al 1988-1990), *Endangered and Threatened Wildlife and Plants* (USFWS 2016, *The Recovery Plan for Upland Species of the San Joaquin Valley, California, Amphibian and Reptile Species of Special Concern in California*, *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al 2012), and *The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* . (See **Appendix D**)

Special status species occurrences within 3.1 miles (5 kilometers) of the Project site are depicted in Figure 6 and San Joaquin kit fox (*Vulpes macrotis mutica*) occurrences within 10 miles of the Project site are depicted in Figure 7 of **Appendix D**.

The Biological Evaluation Update Letter dated June 27, 2022 noted that the following special status animal species occurring on a current query of the CNDDB and IPaC databases were not addressed in LOA's 2019 report.

- Monarch Butterfly (Danaus plexippus) Federal Candidate
- Delta Smelt (Hypomesus transpacificus) Federal Threatened
- Foothill yellow-legged frog (Rana boylii) California Endangered
- Northern California legless lizard (Anniella pulchra)
- Winter's sunflower (Helianthus winteri)
- Alkali-sink goldfields (Lasthenia chrysantha)
- Coulter's goldfields (Lasthenia glabrata ssp. coulteri)
- Sanford's arrowhead (Sagittaria sanfordii)

As determined in the Biological Evaluation Update Letter dated June 27, 2022 (**Appendix D**), all areas of the site have been significantly disturbed from decades of agricultural development and provide unsuitable habitat for all locally occurring special status plant species. Therefore, the Project is expected to have no impact on these special status plant species. Additionally, the Biological Evaluation Update Letter determined that the Project is not expected to have any impacts on the special status animal species that were generated in the current query of the CNDDB and IPaC databases.

Table 3-13. List of Special Status Plant Species that could occur in the Project Vicinity

Species	Status	Habitat	Occurrence in the APE
California Jewel-flower (Caulanthus californicus)	FE, CE, CNPS 1B	Occurs in chenopod scrub, pinyon and juniper woodland, and sandy valley and foothill grassland; blooms February–May; elevation 250-3,300 ft.	**Absent.** Suitable habitat for this species is absent from the APE. Any suitable habitat that may have once been present has been modified by intensive human use.
Hoover's Spurge (*Euphorbia hooveri*)	FT CNPS 1B	Occurs in vernal pools of California's Central Valley; blooms July-September; elevation 80-820 ft.	**Absent.** Suitable habitat in the form of vernal pools does not exist on the APE.
Striped Adobe-lily (*Fritillaria striata*)	CT CNPS 1B	Occurs in cismontane woodland and valley and foothill grassland, primarily in clay soils; blooms February-April; elevation 460-4,750 ft.	**Absent.** Suitable habitat for this species is absent from the APE. Any suitable habitat that may have once been present has been modified by intensive human use.
Kaweah Brodiaea (Brodiaea insignis)	CE CNPS 1B	Occurs in cismontane woodlands and foothill grasslands in granitic soils. Blooms April-June; elevation 500-4,600 ft.	**Absent.** Suitable habitat for this species is absent from the APE. Any suitable habitat that may have once been present has been modified by intensive human use.
San JoaquinValley Orcutt Grass (*Orcuttia inaequalis*)	FT, CE CNPS 1B	Occurs in vernal pools of the Central Valley; requires deep pools with prolonged periods of inundation; blooms April-September; elevation 100-2,480 ft.	**Absent.** Suitable habitat in the form of vernal pools does not exist on the APE.
San Joaquin Adobe Sunburst (*Pseudobahia peirsonii*)	FT, CE CNPS 1B	Occurs in grasslands of the Sierra Nevada foothills in heavy clay soils of the Porterville and Centerville series. Blooms March-April; elevation 300-2,625 ft.	**Absent.** Porterville and Centerville soils are absent from the APE.
Greene's Tuctoria (*Tuctoria greenei*)	FE, CR CNPS 1B	Occurs in vernal pools of the Central Valley; blooms May- September; elevation 100-3,510 ft.	**Absent.** Suitable habitat in the form of vernal pools does not exist on the APE.
Earlimart Orache (*Atriplex cordulata* var. *erecticaulis*)	CNPS 1B	Occurs in valley and foothill grasslands between 130 and 330 ft. in elevation; blooms August-September.	**Absent.** Suitable habitat for this species is absent from the APE. Any suitable habitat that may have once been present has been modified by intensive human use.
Brittlescale (Atriplex depressa)	CNPS 1B	Occurs in chenopod scrub, valley and foothill grassland, and wetland habitats; blooms April-October; elevations below 1,050 ft.	**Absent.** Suitable habitat for this species is absent from the APE. Any suitable habitat that may have once been present has been modified by intensive human use. The CNDDB lists an 1881 occurrence approx. 3 miles west of the site (see Figure 6).
Lesser Saltscale (Atriplex minuscula)	CNPS 1B	Occurs in cismontane woodland and valley and foothill grasslands of the San Joaquin Valley; alkaline/sandy soils; blooms May-October; elevation 50-660 ft.	**Absent.** Suitable habitat for this species is absent from the APE. Any suitable habitat that may have once been present has been modified by intensive human use.
Vernal Pool Smallscale (*Atriplex persistens*)	CNPS 1B	Occurs in alkaline vernal pools; blooms July-October; elevations below 400 ft.	**Absent.** Suitable habitat in the form of vernal pools does not exist in the APE.
Subtle Orache (*Atriplex subtilis*)	CNPS 1B	Occurs in valley and foothill grasslands of the San Joaquin Valley; blooms August-October; elevation 130-330 ft.	**Absent.** Suitable habitat for this species is absent from the APE. Any suitable habitat that may have once been present has been modified by intensive human use.

Species	Status	Habitat	Occurrence in the APE
Recurved Larkspur (*Delphinium recurvatum*)	CNPS 1B	Occurs in cismontane woodland and valley and foothill grass-lands; blooms March-June; alkaline soils; elevations below 2,500 ft.	**Absent.** Suitable habitat for this species is absent from the APE. Any suitable habitat that may have once been present has been modified by intensive human use.
Spiny-Sepaled Button Celery (*Eryngium spinosepalum)*	CNPS 1B	Occurs in vernal pools and valley and foothill grasslands of the San Joaquin Valley and the Tulare Basin; blooms April-May; elevation 330-840 ft.	**Absent.** Suitable habitat in the form of vernal pool wetlands is absent from the APE. Ruderal areas are too disturbed to provide suitable habitat for this species.
Calico Monkeyflower (*Mimulus pictus*)	CNPS 1B	Occurs in broadleaved upland forest and cismontane woodland in granitic soils; may occur in disturbed areas. Blooms March-May; elevation 330-4,270 ft.	**Absent.** Suitable woodland habitat is absent from the APE. Any suitable habitat that may have once been present has been modified by intensive human use.
California Alkali-Grass (*Puccinellia simplex*)	CNPS 1B	Occurs in saline flats and mineral springs less than 900 m. in elevation in the Central valley, San Francisco Bay area and western Mojave Desert.	**Absent.** Suitable habitat in the form of saline flats and mineral springs does not exist in the APE.

Table 3-14. List of Special Status Animal Species that could occur in the Project Vicinity

Species	Status	Habitat	Occurrence in the APE
California Tiger Salamander (*Ambystoma californiense*)	FT, CT	Found primarily in annual grasslands; requires vernal pools for breeding and rodent burrows for aestivation. Although most CTS aestivate within 0.4 mile of their breeding pond, outliers may aestivate up to 1.3 miles away (Orloff 2011).	**Absent.** Vernal pool or seasonal wetland habitat suitable for breeding by the CTS does not exist on or within a 1.3-mile radius of the APE. The APE is situated in a matrix of residential, commercial, and intensive agricultural uses generally not suitable for CTS. The closest known breeding occurrences of CTS are approximately 7 miles north of the APE at the CDFW's Stone Corral Ecological Reserve.
California Red-Legged Frog (*Rana draytonii*)	FT	Occurs in permanent aquatic habitats such as creeks and ponds with emergent vegetation. Has been extirpated from drainages of the Sierra foothills south of Tuolumne County as a result of habitat loss, pollution, and the proliferation of exotic predators.	**Absent.** The APE lies well outside of the current known distribution of this species. There are no documented observations, historical or otherwise, within 10 miles of the APE.
Blunt-Nosed Leopard Lizard (Gambelia sila)	FE, CE, CFP	Occurs in semiarid grasslands, alkali flats, and washes. Avoids densely vegetated areas. Inhabits the San Joaquin Valley and adjacent valleys and foothills north to Merced County.	**Absent.** This species is not known to occur in Tulare County east of Hwy. 99; the closest CNDDB occurrence is nearly 15 miles southwest of the APE. Furthermore, the APE is situated in a matrix of residential, commercial, and intensive agricultural uses generally not suitable for this species.
Giant Garter Snake (*Thamnophis gigas*)	FT	Occurs in marshes, sloughs, drainage canals, irrigation ditches, rice fields, and adjacent uplands. Prefers locations with emergent vegetation for cover and open areas for basking. Has been extirpated from the southern San Joaquin valley.	**Absent.** The APE lies well outside of the current known distribution of this species. The nearest extant population of giant garter snake recognized by the USFWS occurs in the Mendota area, more than 60 miles to the northwest.

Species	Status	Habitat	Occurrence in the APE
Swainson's Hawk (*Buteo swainsoni*)	CT	This breeding-season migrant to California nests in stands with few trees in riparian areas and juniper-sage flats, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	**Possible.** Most of the APE is orchard and vineyard incompatible with Swainson's hawk foraging and nesting strategies. Although the mature valley oaks of the site are structurally suitable for nesting by Swainson's hawks, the trees are unlikely to be used because they are all either surrounded by orchard or located adjacent to residences and busy roads. Swainson's hawks could theoretically forage in ruderal areas of the site. An active Swainson's hawk nest was observed approximately 3 miles east of the APE in 2009 (Hansen 2009), and the CNDDB lists 3 other nests within 10 miles of the APE.
White-Tailed Kite (*Elanus leucurus*)	CFP	Occurs in savanna, open woodlands, marshes, desert grassland, and cultivated fields. Prefer lightly grazed or ungrazed fields for foraging.	**Possible.** The APE is not typical of open habitats used by kites; however, kites could occasionally forage in ruderal areas of the APE and could theoretically nest in the APEs mature valley oak trees.
Golden Eagle (*Aquila chrysaetos*)	CFP	Typically frequents rolling foothills, mountain areas, sage-juniper flats and desert.	**Unlikely.** The APE is not typical of habitats used by golden eagles; however, individuals may pass over the APE from time to time. Breeding habitat is absent.
Western Yellow-Billed Cuckoo (*Coccyzus americanus occidentalis*)	FT, CE	Occurs in valley foothill and desert riparian habitats in scattered locations in California Requires extensive gallery riparian forests for nesting.	**Absent.** The scattered valley oak trees of the APE are not extensive enough to fulfill nesting requirements of this species. The only known occurrence in the project vicinity was mapped generally to Visalia in 1919.
Tricolored Blackbird (*Agelaius tricolor*)	CC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	**Possible.** Tricolored blackbirds could forage in the APEs ruderal areas or agricultural basins from time to time, but breeding habitat is absent. The closest known occurrence of a breeding colony was documented approximately 9 miles east of the APE in 2000.
Tipton Kangaroo Rat (*Dipodomys nitratoides nitratoides*)	FE, CE	Occurs in chenopod scrub and alkali grasslands in isolated portions of Kings, Tulare, and Kern Counties.	**Unlikely.** Habitats of the APE are unsuitable for Tipton kangaroo rat due to their disturbed nature and ongoing intensive human use. The closest known occurrence of this species was documented approximately 14 miles south of the APE in 1943.
San Joaquin Kit Fox (*Vulpes macrotis mutica*)	FE, CT	Found in desert alkali scrub and annual grasslands; may forage in adjacent agricultural habitats. Use underground dens for thermoregulation, cover, and reproduction. Dens are either self-dug or modified rodent burrows.	**Unlikely.** Although ground squirrel burrows along the seasonal channel banks and levee roads represent potential denning and foraging habitat for kit fox, these habitats are fragmented and disturbed and would, at best, be considered marginal due to intensive surrounding agricultural and residential uses. Kit foxes are not expected to breed or regularly forage on the site but may pass through during dispersal movements. There have been 15 documented occurrences of kit fox within 10 miles of the APE; the most recent of these was documented approximately 9 miles west of the APE in 2003 (see Figure 7).

Species	Status	Habitat	Occurrence in the APE
Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)	FT	Occurs in vernal pools, clear to tea-colored water in grass or mud-bottomed swales, and basalt depression pools.	**Absent.** Suitable habitat in the form of vernal pools is absent from the APE.
Vernal Pool Tadpole Shrimp (*Lepidurus packardi*)	FE	Primarily found in vernal pools but may use other seasonal wetlands in mesic valley and foothill grasslands.	**Absent.** Suitable habitat in the form of vernal pools is absent from the APE.
Valley Elderberry Longhorn Beetle (VELB) (*Desmocerus californicus dimorphus*)	FT	Lives in mature elderberry shrubs of California's Central Valley and Sierra Foothills.	**Absent.** The USFWS recently determined that the range of this species does not include County. Moreover, elderberry shrubs are absent from the APE.
Burrowing Owl (*Athene cunicularia*)	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low- growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	**Possible**. Burrowing owls could potentially roost or nest in burrows found in the banks and levee roads of Mill Creek Ditch and Packwood Creek, and could forage in ruderal areas of the site. There are six CNDDB occurrences of this species within a 10-mile radius of the project site, the closest of which are located approximately 7 miles to the north at CDFWs Stone Corral Ecological Reserve.
Loggerhead Shrike (*Lanius ludovicianus*)	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	**Possible**. Shrikes could nest in trees and shrubs of the site and could forage in ruderal areas.
Pallid Bat (*Antrozous pallidus*)	CSC	Found in grasslands, chaparral, and woodlands, where it feeds on ground- and vegetation-dwelling arthropods. Prefers to roost in rock crevices, but may also use tree cavities, caves, bridges, and buildings.	**Possible.** Potential foraging habitat occurs in ruderal areas of the site; potential roosting habitat occurs in mature trees. There is a documented occurrence approx. 1 mi northeast of the site (see Figure 6).
Western Mastiff Bat (*Eumops perotis californicus*)	CSC	Found in open, arid to semi-arid habitats. Roosts most commonly in crevices in cliff faces, but may also use high buildings, trees, and tunnels.	**Possible.** Potential foraging habitat occurs in ruderal areas of the site; potential roosting habitat occurs in mature trees.
American Badger (*Taxidea taxus*)	CSC	Uncommon resident statewide; most abundant in drier open stages of most shrub, forest, and herbaceous habitats.	**Possible.** Although the majority of the APE offers only marginal habitat for this species due to past and ongoing disturbance, badgers could conceivably den or forage on site. A single burrow with evidence of possible badger use (claw marks on the side walls) was observed along Mill Creek Ditch. The CNDDB lists a 1994 occurrence of this species approx. 2.5 mi east of the site (see Figure 6).

OCCURRENCE TERMINOLOGY

Present:	Species observed on the site at time of field surveys or during recent past.
Likely:	Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.
Possible:	Species not observed on the site, but it could occur there from time to time.
Unlikely:	Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient.
Absent:	Species not observed on the site and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPE	Federally Endangered (Proposed)	CFP	California Fully Protected
FPT	Federally Threatened (Proposed)	CSC	California Species of Special Concern
FC	Federal Candidate	CC	California Candidate

CNPS California Native Plant Society Listing.

1A	Plants Presumed Extinct in California.	2	Plants Rare, Threatened, or Endangered in California, but more common elsewhere.
1B	Plants Rare, Threatened, or Endangered in California and elsewhere.		

Project Impacts to Special Status Animal Species Likely or Possible to Occur on the Project Site

Potential Impacts. Of the 26 regionally occurring special status animal species identified on the CNDDB and IPac database queries in the APE, and the following nine species were declared possible to occur on-site and therefore, could potentially be impacted by Project activities The species are Swainson's hawk, white-tailed kite, tricolored blackbird, northern harrier, burrowing owl, loggerhead shrike, palled bat, western mastiff bat, and American badger. The following mitigation measures identified below would reduce the potential impacts to less than significant level and would ensure compliance with State and federal laws protecting these resources.

- **BIO-1 (Worker Environmental Awareness Program Training)**

    - Prior to initiating construction activities (including staging and mobilization), all personnel associated with Project construction shall attend mandatory Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to aid workers in identifying special status resources that may occur in the Project area.
    - The specifics of this program shall include identification of the sensitive species and suitable habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area.
    - This training will specifically discuss the conservation status of the California condor, in addition to all other special status species, describe the laws and regulations in place to provide protection of these species, identify the penalties for violation of applicable environmental laws and regulations, and a list of required protective measures to avoid "take."
    - A fact sheet conveying this information, along with photographs or illustrations of sensitive species with potential to occur on-site, shall also be prepared for distribution to all contractors, their employees, and all other personnel involved with construction of the Project.
    - All employees shall sign a form documenting that they have attended WEAP training and understand the information presented to them.

- **BIO-2 (Construction Operational Hours)**

    - Construction shall be conducted during daylight hours to reduce disturbance to wildlife that could be foraging within work areas.

- **BIO-3 (Best Management Practices)**

    - The Project proponent will ensure that all workers employ the following BMPs in order to avoid and minimize potential impacts to special status species:
        - **BIO-3a**
            - Vehicles shall observe a 15-mph speed limit while on unpaved access routes.
        - **BIO-3b:**
            - Workers shall inspect areas beneath parked vehicles prior to mobilization. If special status species are detected beneath vehicles, the individual will either be allowed to leave of its own volition or will be captured by the qualified biologist (must possess appropriate collecting/handling permits) and relocated out of harm's way to the nearest suitable habitat beyond the influence of the Project work area.
            - "Take" of listed (rare, threatened, or endangered) is prohibited. If a listed species is observed within the Project area, the biologist will stop work and contact the appropriate regulatory agency (CDFW and/or USFWS) for guidance on how to proceed.

- **BIO-3c:**
  - The presence of any special status species and/or any wildlife mortalities will be reported to the designated biologist and the appropriate regulatory agencies (CDFW, USFWS, etc.).

- **BIO-4 (Avoidance)**
  - The Project construction activities shall occur, if feasible, between September 1 and January 31 (outside of nesting bird season) in an effort to avoid impacts to listed species.

- **BIO-5 (Pre-construction Survey)**
  - A qualified biologist shall conduct pre-construction surveys specific to the following species: Swainson's hawk, white-tailed kite, tricolored blackbird, northern harrier, burrowing owl, loggerhead shrike, palled bat, western mastiff bat, and American badger.

    - **BIO -5a Nesting Birds:**
      - If activities must occur within nesting bird season (February 1 to August 31), the survey shall include the proposed work area and surrounding lands within 500 feet.
      - If no active nests are observed, no further mitigation is required.
      - Raptor nests are considered "active" upon the nest-building stage.
      - All other nests are considered "active" by the presence of eggs or young.

    - **BIO-5b Animal Species:**
      - A pre-construction survey of Project areas within 30 days prior to vegetation clearing or ground disturbing activities.
      - Environmentally sensitive areas will be flagged for avoidance.
      - If suitable habitat for regionally occurring special status species are detected upon pre-construction surveys, construction monitoring will be required.

- **BIO -6 (Establish Buffers):**
  - On discovery of any active nests or listed species near work areas, the biologist shall determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question.
  - Construction buffers shall be identified with flagging, fencing, or other easily visible means, and shall be maintained until the biologist has determined that the nestlings have fledged, or construction has finished in that area.

- **BIO-7 (Monitor):**
  - A qualified biologist will conduct a pre-activity clearance survey each day and remain on-site to oversee all vegetation clearing and ground disturbing activities conducted within suitable habitat for special status species that were identified in the pre-construction surveys (BIO 5 a-b).
  - The biological monitor must possess required collecting/handling permits.
  - If a special status species is observed within Project areas, the biologist will stop work order and the individual will either be allowed to leave of its own volition or will be captured by the qualified biologist and relocated out of harm's way to the nearest suitable habitat beyond the influence of the Project work area.
  - "Take" of listed (rare, threatened, or endangered) is prohibited.
  - If a listed species is observed within the Project area, the biologist will stop work and contact the appropriate regulatory agency (CDFW and/or USFWS) for guidance on how to proceed.

Project Impacts to Special Status Animal Species Absent from, or Unlikely to Occur on the Project Site

Potential Impacts. Of the 26 special status animal species that potentially occur in the APE, 17 are considered absent or unlikely to occur on the Project site due to past and ongoing disturbance of the site and surrounding lands, the absence of suitable habitat, and/or the sites being situated outside of the species known distribution. These species include the vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, California tiger salamander, California red-legged frog, blunt-nosed leopard lizard, giant garter snake, golden eagle, western yellow-billed cuckoo, Tipton kangaroo rat, San Joaquin kit fox, western spadefoot, and western pond turtle, monarch butterfly, delta smelt, foothill yellow-legged frog, and the Northern California legless lizard The project does not have the potential to significantly impact these species through construction mortality or loss of habitat because there is little or no likelihood that they are present.

Project impacts to special status animals considered absent or unlikely to occur on the site are less than significant under CEQA and NEPA. Mitigation is not warranted.

Project Impacts to Special Status Plant Species Absent from, or Unlikely to Occur on the Project Site

Potential Impacts. There were 20 special status plant species that were identified during the CNDDB and IPaC queries of the APE and surrounding lands. All of the plant species were determined to be absent from the APE. Since there is little to no likelihood of these species occurring on-site, implementation of the Project would have no effect on individual plants or populations of these species. Mitigation measures are not warranted.

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

Less than Significant Impact. Natural communities of special concern are those that are of limited distribution, distinguished by significant biological diversity, home to special status plant and animal species, of importance in maintaining water quality or sustaining flows, etc. Examples of natural communities of special concern in the eastern San Joaquin Valley in the vicinity of the Project would include vernal pools and various types of riparian forest.[14]

Natural communities of special concern are limited to sporadic riparian habitat associated within Packwood Creek and Mill Creek. The value of this riparian habitat as a natural community of special concern has been diminished due to the fragmented nature of the woodland and close proximity of urban and suburban developments. Orchard, vineyard, ruderal, irrigation ditches, and agricultural basins are regionally abundant and/or a result of human manipulation and would not be considered natural communities of special concern.

Disturbance to Riparian Habitat or other Sensitive Habitats

Agricultural and disturbed lands occupy the majority of the site and are not considered sensitive habitats. These habitats of the site are not of significant importance to regional wildlife populations. Twenty-six valley oaks were identified on the site along Mill Creek Ditch, Oakes Ditch, Packwood Creek and a few along Road 152. Although valley oaks are typically considered a riparian species, the sporadic, fragmented nature of these isolated trees has created habitat conditions unlike typical dense riparian habitat with multiple canopy layers. The value of this habitat for wildlife is low. However, there is a City Oak Tree Ordinance and permits are required prior to any oak tree removal and replacement oak trees (in-kind) or payment in-lieu of replacement trees may be required. Oak tree impacts and mitigation are described under impact assessment e) below. On-site agricultural basins and irrigation ditches would not be considered sensitive habitat. Because riparian habitat on site is

[14] See Appendix D. Biological Evaluation

extremely marginal and fragmented, and other habitats are not considered sensitive, future project construction will have a less than significant impact on these habitats. Mitigation is not warranted.

Project Impacts to Designated Critical Habitat

As discussed, designated critical habitat is absent from the Project site and immediate vicinity. Therefore, the Project does not have the potential to impact critical habitat.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant Impact.

Disturbance to Waters of the United States and Waters of the State

Potential Impacts. A Delineation of Aquatic Resources report has been prepared by Live Oak Associates, Inc. (**Appendix D**) for the Project, and would be submitted to USACE for review and verification. A total of approximately 2.17 acres of possible jurisdictional waters including Mill Creek Ditch and Packwood Creek. Hydrologic features on the site also include three ditches and five basins that appear to fall into categories of waters that are considered exempt according to the CWA These features are also expected to be exempt from CDFW jurisdiction.

The Project would result in significant impacts to potential jurisdictional waters. The anticipated level and duration of impact would vary depending on the phasing and ultimate buildout of the Project. Very minor direct, permanent impacts are anticipated with Phase I of the Project, which would entail tying into Mill Creek and Packwood Creek for the installation of the stormwater basins. During this initial phase, it is anticipated that a few hundred square feet would be affected in each channel from installation of control structures to divert water from Mill Creek and Packwood Creek into the basins under gravity flow at specific locations (see Figure 3a of **Appendix B**). Any fill, placement of control structures, placement of riprap or other permanent erosion control measures within jurisdictional waters would be considered direct, permanent impact.

In Phase 2, the Project proposes to realign the entire on-site stretch of Mill Creek to its more natural historic meandering channel (**Figure 2-4**).

Although Mill Creek and Packwood Creek are considered excluded waters, Fleming Ditch would remain in-place untouched, the unnamed ditch would be eliminated, and Oakes Ditch would be reconfigured and would terminate into a new pipeline on the east side of the project near Road 152. This pipeline would deliver irrigation tailwater into the recharge basin located north of Packwood Creek.

Estimated impacts to jurisdictional waters after full project buildout (including Phase 2) are presented in **Table 3-15.**

Table 3-15. Potential Impacts to Waters of U.S.

Potential Impacts					
Type of Water	**Acres (ac)**	**Square Feet (sf)**	**Linear Feet (lf)**	**Approx. Impacts (ac)**	**Approx. Impacts (lf)**
Mill Creek Ditch	1.18	51,398	2,490	1.18	2,490
Packwood Creek	0.99	43,095	2,847	.007	50
TOTAL	**2.17**	**94,493**	**5,337**	**1.2**	**2,540**

Impacts to jurisdictional waters are also subject to the permit requirements of Sections 404 and 401 of the CWA. The placement of fill within any wetlands or other jurisdictional features would require a CWA permit from the USACE, and a Water Quality Certification from the RWQCB. These permits cannot be issued without an accepted preliminary jurisdictional determination or a verified wetland delineation by the USACE. Additionally, impacts to the seasonal channels as proposed would require a Lake or Streambed Alteration Agreement from CDFW. Given the extent of impacts to potential jurisdictional waters these impacts are considered potentially significant under CEQA and NEPA.

Actual permitting requirements for impacts to potentially jurisdictional waters would vary depending on timing of Project phasing and the extent of ultimate Project build-out. Discussion of the nationwide permits (NWP) below is based on current regulatory guidance and is subject to change once the revised permits are released. Based on the current permits, the NWP that Phase 1 (construction of stormwater basins) would likely qualify for would be NWP 43, Stormwater Management. It is not anticipated that impacts from Phase 1 would exceed the threshold for this NWP [300 linear-feet (LF) and/or ½ acre of channel]. However, the USACE typically would not permit a single phase of a project; they typically permit a project based on total buildout (i.e., all phases).

Eventual realignment of Mill Creek in its entirety (as proposed during Phase II) would likely trigger the need for an individual permit rather than a NWP, primarily due to the fact that final build-out of the Project would far exceed the impact threshold for most of the NWPs (including NWP 43). Acquisition of an individual permit requires informal consultation with USFWS through preparation of a Section 7 Biological Assessment, preparation of an alternatives analysis, Section 106 consultation, and a 15-day public noticing period. Conditions of the 404 and 401 permits would likely require some form of on-site and/or off-site replacement of jurisdictional waters, and/or payment into an in-lieu fund for permanent impacts to jurisdictional waters. However, the Project would comply with all regulatory permitting requirements and would obtain a 404, 401 and/or Lake or Streambed Alteration Agreement. These permits would lay out an approved way to work in and around jurisdictional waters and would include appropriate mitigation measures to follow. Therefore, with the required permits, the Project would have a less than significant impact on jurisdictional waters.

Degradation of Water Quality in Seasonal Drainages, Stock Ponds, and Downstream Waters

Potential Impacts. Sedimentation and transport of polluted runoff into seasonal drainages has the potential to occur as a result of Project activities. Impacts can be reduced to a less than significant level through implementation of measures to protect water quality during construction, as described below. The Project would prepare a SWPPP consistent with the requirements of a grading permit and a NPDES General Construction Permit issued by the RWQCB. A SWPPP provides erosion control measures that must be implemented throughout the project schedule and would be monitored weekly to ensure that the erosion control measures are successfully preventing on-site erosion and sediment releases. Elements of this plan would also address both the potential for soil erosion and non-point source pollution.

Therefore, with the application and implantation of a SWPPP, the Project would have a less than significant impact under CEQA and NEPA and ensure that the Project is in compliance with State and federal laws protecting waterways and water quality.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact. Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, ridgelines, and rivers and creeks supporting riparian vegetation. Certain features of the study area have the potential to function as movement corridors for resident and migratory fish and wildlife species. The largely engineered channels and

ditches would likely not serve as important travel routes for terrestrial wildlife, but could aid passage by aquatic species when inundated. The top of the banks along each of these waterways may facilitate home range and/or dispersal movements of some locally occurring terrestrial wildlife, but the waterways likely do not represent regionally important movement corridors for these species. The Pacific flyway, one of four major bird migration routes in North America, passes over the study area and much of the rest of California. The relatively small Project area and nature of the Project site has minimal potential as a wildlife movement corridor.

Potential Impacts. The site does not contain important movement corridors for native wildlife. Following completion of the Project, the site would function in much the same manner as it does now in that regard. Birds using the Pacific flyway would continue to do so following Project development. Therefore, the Project would result in a less than significant effect on regional wildlife movements.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant Impact with Mitigation Incorporated. In compliance with CEQA, the lead agency considers conformance with applicable goals and policies of the City General Plan. The City has adopted an Oak Tree Preservation Ordinance, codified at VMC Chapter 12.24. Pursuant to the ordinance, the City subsequently developed an Oak Tree Mitigation Policy that established appropriate mitigation for loss of valley oak trees along with policies for administration of the Oak Tree Maintenance Fund.

There are no applicable habitat conservation plans.

Potential Impacts. Twenty-nine valley oaks were identified on the site along Mill Creek Ditch, Oakes Ditch, Packwood Creek and a few along Road 152. Twenty-four of the 29 valley oak trees were greater than 24 inches in diameter at breast height. In determining whether to remove these oaks, the City would be required to comply with the provisions of the Oak Tree Preservation Ordinance and the corresponding Oak Tree City Ordinance.

The applicant shall implement the following measures:

- **BIO – 8: (Mitigation Fees or Replacement Planting).**
  Should avoidance of valley oak trees not be possible, the City will comply with the permitting requirements of the Oak Tree Preservation Ordinance and will mitigate the loss consistent with the provisions of the Oak Tree Mitigation Policy.

Implementation of these measures will reduce potentially significant Project impacts to oak trees to a "less than significant" level under CEQA and NEPA.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There are no habitat conservation plans or Natural Community Conservation Plans that occur in the Project area. Therefore, the Project does not have the potential to conflict with local, regional, or state habitat conservation plans.

3.4.5 Cumulative Impacts

Less than Significant Impact with Mitigation Incorporated. A total of four projects have been proposed or approved within four miles of the Project site. Implementation of the Project, as well as many of the related projects, would add to the incremental loss of species habitat in the project vicinity. Habitat loss would affect resident species, including special status species, such as the burrowing owl, Swainson's hawk, San Joaquin kit fox, and American badger.

The Project and the cumulative projects would be required to implement appropriate mitigation measures to reduce biological impacts to less than significant levels. The mitigation measures identified in **Section 3.4.4**, discuss ways in which the Project can reduce impacts such as avoiding sensitive breeding/nesting periods, performing pre-construction surveys, and if necessary and with approval from CDFW, passive relocation of owls. Currently, there are no Habitat Conservation Plans for sensitive species within the Project area. Therefore, cumulative impacts to biological resources would be less than significant with mitigation incorporated.

3.5 Cultural Resources

Table 3-16. Cultural Resources

Cultural Resources					
Would the project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

3.5.1 Environmental Setting

The following information regarding historical, archaeological, or paleontological resources can be found in the Cultural Resource Inventory and the Paleontological Technical Memorandum prepared by Applied Earthworks, Inc., (AE). (**Appendix I**):

3.5.2 Methodology

Cultural Resource Inventory

The Cultural Resource Inventory conducted by AE, contained in **Appendix G**, consisted of a records search, Native American outreach, a pedestrian survey, and resource documentation. AE requested a California Historical Resources Information Systems (CHRIS) records search from the Southern San Joaquin Valley Information Center (SSJVIC) at California State University, Bakersfield on December 18, 2014. Staff at the SSVJIC consulted cultural resource location and survey base maps, results of previous investigations, cultural resource records, the listings of the National Register of Historic Places (NRHP), the Historic Property Data File, a listing of California Historical Landmarks, the California Register of Historical Resources (CRHR), the California Inventory of Historic Resources, and the California Points of Historic Interest. The Caltrans Historic Bridge Inventory was also consulted.

AE contacted the Native American Heritage Commission (NAHC) on December 18, 2014 to request a search of the Sacred Lands File. To assist in determining whether any Native American cultural resources have been recorded in the Project area, a list of individuals and groups who may have information regarding resources of sacred or special cultural and spiritual significance was requested and received. On January 19, 2015, AE sent a letter describing the project and its location to each of the eight contacts identified by NAHC.

As described in **Appendix G** Cultural Resource Inventory, "AE archaeologists Katie Asselin, Elizabeth Rapp and Josh Tibbet conducted a pedestrian survey of the 280-acre project area on January 8-9, 2015, and January 13-16, 2015, using parallel and meandering transects spaced no more than 15-20 meters apart. They took photographs of the project area using a digital camera, collected Global Positioning System data using a Trimble GeoXH unit, and documented observations on a survey record form. Copies of photographs and field notes are on file at AEs office in Fresno, California."

Also, on March 1, 2017, AE historian Randy Baloian conducted an Architectural Evaluation of the two historic water conveyances, the Mill Creek Levee/Evans Ditch and the Oakes Ditch to assess their integrity. These resources are catalogued as P-54-002179/CA-TUL-3053H and P-54-005290/CA-TUL-3101H, respectively, by the NRHP and CRHR.

During the pedestrian survey, whenever newly discovered or previously recorded resources were encountered, they were documented; each resource was photographed using a digital camera, and newly identified resources were recorded on the appropriate California Department of Parks and Recreation forms. These forms are provided in **Appendix H**.

Paleontological Technical Memorandum

In addition to the pedestrian survey and records searches conducted for historical and cultural resources, AE completed a desktop investigation to assess the paleontological sensitivity of geologic units exposed at the ground surface and those likely to occur in the subsurface of the Project area. AE reviewed published geologic maps and paleontological literature, and conducted museum records searches. For the records searches, AE retained the Natural History Museum of Los Angeles County (NHMLAC) to conduct a search of fossil localities recorded in their collections (Bell, 2022). To augment these results, AE also conducted searches of the online Paleobiology Database (PBDB) and the University of California Museum of Paleontology (UCMP). The PBDB lists a large collection of museum records and publications of fossil material, while the UCMP is the largest repository of fossils on the West Coast of the United States with an older history of collection than several other regional natural history museums. The full technical memo can be found in **Appendix I**.

3.5.3 Regulatory Setting

Federal

National Historic Preservation Act

The NHPA is the most prominent federal law dealing with historic preservation. The NHPA establishes guidelines to "preserve important historic, cultural, and natural aspects of our national heritage, and to maintain, wherever possible, an environment that supports diversity and a variety of individual choice." The NHPA includes regulations specifically for federal land-holding agencies, but also includes regulations (Section 106) which pertain to all projects that are funded, permitted, or approved by any federal agency and which have the potential to affect cultural resources. All projects that are subject to the NEPA are also subject to compliance with Section 106 of the NHPA. For federally-involved projects, the California Office of Historic Preservation (OHP) carries out reviews under Section 106 of the NHPA.

The Section 106 review process normally involves a four-step procedure described in detail in the Section 106 Regulations (36 CFR Part 800):

- Identify and evaluate historic properties in consultation with the State Historic Preservation Officer (SHPO) and interested parties;
- Assess the effects of the undertaking on properties that are eligible for inclusion in the NRHP;
- Consult with the SHPO, other agencies, and interested parties to develop an agreement that addresses the treatment of historic properties and notify the Advisory Council on Historic Preservation; and
- Proceed with the project according to the conditions of the agreement.

National Register of Historic Places

The NHPA authorizes the Secretary of the Interior to establish a NRHP, an inventory of districts, sites, buildings, structures, and objects significant on a national, state, or local level in American history, architecture,

archeology, engineering, and culture. The National Register is maintained by the National Park Service, the Advisory Council on Historic Preservation, SHPO, and grants-in-aid programs.

National Environmental Policy Act

Specific projects that are subject to NHPA must also comply with NEPA requirements for the consideration of cultural resources. Compliance with NEPA requirements concerning cultural resources may be addressed through compliance with Section 106 of the NHPA. Reports, agreements, and correspondence documenting compliance with Section 106 of the NHPA are provided to the lead NEPA agency for a specific proposed action that is subject to NEPA.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) strives to ensure that all Indian human remains and cultural items are treated with dignity and respect. It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums. It also states the intent for states to provide mechanisms for aiding Indian tribes, including non-federally recognized tribes, in filing repatriation claims and getting responses to those claims.

State

Office of Historic Preservation

The mission of the OHP and the State Historical Resources Commission is to preserve and enhance California's irreplaceable historic heritage as a matter of public interest so that its vital legacy of cultural, educational, recreational, aesthetic, economic, social, and environmental benefits will be maintained and enriched for present and future generations. PRC Section 5024 requires consultation with the SHPO when a project may impact historical resources located on State-owned land.

California Register of Historic Resources

The SHPO maintains the CRHR. Historic properties listed, or formally designated for eligibility to be listed, on the National Register are automatically listed on the CRHR (PRC Section 5024.1). State Landmarks and Points of Interest are also automatically listed. The California Register can also include properties designated under local preservation ordinances or identified through local historic resource surveys.

For a historic resource to be eligible for listing on the California Register, it must be significant at the local, State, or national level under one or more of the following four criteria:

- It is associated with events that have made a significant contribution to the broad patterns of local and regional history, or the cultural heritage of California or the United States;
- It is associated with the lives of persons important to local, California, or national history;
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (California Public Resources Code).

California Environmental Quality Act

PRC Section 21083.2 Archaeological Resources: CEQA directs the lead agency to include in its environmental assessment for the project a determination of the project effects on unique archeological resources; defines unique archeological resource; enables a lead agency to require an applicant to make a reasonable effort to

preserve or mitigate impacts to any affected unique archeological resource; sets requirements for the applicant to provide payment to cover costs of mitigation; and restricts excavation as a mitigation measure.

PRC Section 21084.1 Historic Resources: CEQA establishes that adverse effects on a historic resource qualifies as a significant effect on the environment; and defines historical resource.

CEQA Guidelines Section 15064.5: This section defines three ways that a property can qualify as a significant historical resource for the purposes of CEQA review:

- If the resource is listed in or determined eligible for listing in the California Register of Historical Resources;
- If the resource is included in a local register of historical resources, as defined in PRC Section 5020.1(k), or is identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g) unless a preponderance of evidence demonstrates that it is not historically or culturally significant; or
- If the lead agency determines the resource to be significant as supported by substantial evidence (CEQA Guidelines Section 15064.5)

In addition to determining the significance under CEQA and eligibility of any identified historical resource for the California Register, historic properties must be evaluated under the criteria for the National Register should federal funding or permitting become involved in any undertaking subject to this document.

CEQA Guidelines on Mitigation of Cultural Resources Impacts

CEQA Guidelines Section 15126.4 states that "public agencies should, whenever feasible, seek to avoid damaging effects on any historical resources of an archeological nature." The Guidelines further state that preservation-in-place is the preferred approach to mitigate impacts on archaeological resources. However, according to Section 15126.4, if data recovery through excavation is "the only feasible mitigation," then a "data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resources, shall be prepared and adopted prior to any excavation being undertaken." Data recovery is not required for a resource of an archaeological nature if "the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource." The section further states that its provisions apply to those archaeological resources that also qualify as historic resources.

CEQA Guidelines on Mitigation of Paleontological Resources Impacts

At the State level, paleontological resources are protected under CEQA, which requires detailed studies that analyze the environmental effects of a proposed project. If a project is determined to have a potential significant environmental effect, the act requires that alternative plans and mitigation measures be considered. If paleontological resources are identified as being within the proposed project area, the lead agency must take those resources into consideration when evaluating project effects. The level of consideration may vary with the importance of the resource. (**Appendix G)**

Native American Heritage Act

Also relevant to the evaluation and mitigation of impacts to cultural resources is the Native American Heritage Act of 1976 which established the NAHC and protects Native American religious values on State property (see PRC Section 5097.9).

California Government Code 65352.3-5: Local Government-Tribal Consultation.

California GC Sections 65092, 65351, 65352, 65352.3, and 65352.4, formally known as SB 18, regulate the consultation with California Native American tribes having traditional lands located within the jurisdiction of applicable cities and counties. The intent of the underlying legislation was to provide all California Native American tribes that are on the contact list maintained by the Native American Heritage Commission, an opportunity to consult with specific local governments for the purpose of preserving and protecting their sacred places. Such consultations apply to the preparation, adoption and amendment of general plans.

Assembly Bill 52

PRC Section 21080.3.1, AB 52, the Native American Historic Resource Protection Act, sets forth a proactive approach intended to reduce the potential for delay and conflicts between Native American and development interests. Projects subject to AB 52 are those that file a notice of preparation for an DEIR or notice of intent to adopt a negative or mitigated negative declaration on or after July 1, 2015. AB 52 adds TCRs to the specific cultural resources protected under CEQA. Under AB 52, a TCR is defined as a site, feature, place, cultural landscape (must be geographically defined in terms of size and scope), sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the CRHR, or included in a local register of historical resources. A Native American Tribe or the lead agency, supported by substantial evidence, may choose at its discretion to treat a resource as a TCR. AB 52 also mandates lead agencies to consult with tribes, if requested by the tribe, and sets the principles for conducting and concluding consultation.

Disposition of Human Remains (Health and Safety Code Section 7050.5)

When an initial study identifies the existence, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native American groups or individuals as identified by the NAHC as provided in PRC Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains, and any items associated with Native American burials. Furthermore, HSC Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the NAHC.

California Native American Graves Protection and Repatriation Act of 2001

HSC Sections 8010-8011 establish a State repatriation policy intent that is consistent with and facilitates implementation of NAGPRA. The Act strives to ensure that all California Indian human remains and cultural items are treated with dignity and respect. It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It also states the intent for the state to provide mechanisms for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims and getting responses to those claims.

Local

City of Visalia General Plan Update

- Policy OSC-P-39: Establish requirements to avoid potential impacts to sites suspected of being archaeologically, paleontologically, or historically significant or of concern, by:
    - Requiring a records review for development proposed in areas that are considered archaeologically or paleontologically sensitive;
    - Determining the potential effects of development and construction on archaeological or paleontological resources (as required by CEQA);

- Requiring pre-construction surveys and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity; and
- Implementing appropriate measures to avoid the identified impacts, as conditions of project approval.

3.5.4 Impact Assessment

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

Less than Significant after Mitigation Incorporated. The Cultural Resources Inventory conducted by AE identified five potential historical resources within the Project area. Two of these resources are historic bridges which have been designated as ineligible for the NRHP; these bridges have not been evaluated for the CRHR, but the report found in **Appendix E** concluded that neither bridge appears to exhibit any characteristics that would make it significant at a local, State, or federal level.

The inventory also identified an isolated obsidian biface thinning flake, which was found in an area that has been previously impacted by grading and levee construction surrounding the creek and by cultivation of the adjacent orchards. Although AE completed a primary record for this isolate, because it is not associated with an archaeological site it is not considered eligible for the CRHR and does not require further consideration.

The remaining two resources are the Mill Creek Levee and Evans Ditch, and Oakes Ditch. AE conducted an intensive survey of the Mill Creek Levee through the Project area and did not find evidence of a subsurface deposit of historic artifacts. AE evaluated the significance of these resources based on archival research and concluded that the Mill Creek Levees (as a recorded element of the Evans Ditch) and the Oakes Ditch are considered significant under both the NRHP and CRHR Criterion A/1 because of their association with the Kaweah and Mill Creek Water Company (KMCWC). Despite the significance of the resources as part of the KMCWC system, the recorded segments do not possess sufficient integrity to convey such significance. Based on this evaluation, the Project would not have an adverse effect on historical resources eligible for inclusion in the NRHP or CRHR.

Native American outreach on the part of AE resulted in an email received from the Santa Rosa Rancheria, recommending cultural monitoring during all ground disturbances due to the Tribe's assessment of a high-risk potential for encountering cultural resources. Given the potential threat of significant impact if any additional historical resources are uncovered during Project construction, and consideration of the Santa Rosa Rancheria's recommendation, implementation of the following measure would ensure that impacts would be less than significant.

- **CR-1:** If, in the course of project construction or operation, any archaeological or historical resources are uncovered, discovered, or otherwise detected or observed, activities within one hundred (100) feet of the find shall be ceased and the City of Visalia shall be notified immediately. The project proponent shall retain a qualified archaeologist to assess the significance of the find and make mitigation recommendations, if warranted. The archaeologist shall document the resources using DPR 523 forms and file said forms with the CHRIS. The resources shall be photo-documented and collected by the archaeologist for submittal. The archaeologist shall be required to submit to the County for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken.

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

Less than Significant after Mitigation Incorporated. As discussed under Impact a), impacts to the archeological resources would be considered less than significant with mitigation incorporation. Mitigation Measure CR-1 would prevent further impacts to previously undiscovered resources.

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant after Mitigation Incorporated. The Paleontological Technical Memorandum (**Appendix I**) used the SVP (2010) sensitivity criteria to determine the paleontological sensitivity of the Project area. Based on AE's desktop efforts and the Natural History Museum of Los Angeles County and online records searches, the Project area has Low to High Potential for paleontological resources, dependent on depth. Holocene-age recent alluvial fan deposits mapped at the surface have Low Potential. Pleistocene-age alluvial deposits in the subsurface have High Potential, although the depth at which this transition occurs is presently unknown and requires additional investigation. Implementation of the following Mitigation Measures CR-2 and CR-3 would ensure that impacts to unknown paleontological resources are less than significant.

- **CR-2:** Prior to the issuance of grading permits, a Paleontological Resource Impact Mitigation Program (PRIMP) shall be prepared by a qualified professional paleontologist. The PRIMP will utilize the results of the paleontological technical memo refined by the results of geotechnical borings to specify the steps to be taken to mitigate impacts to paleontological resources.
- **CR-3** A Paleontological Resources - Worker Environmental Awareness Program (WEAP) training shall be prepared prior to the start of Project-related ground disturbance and presented in person to all on-site construction personnel to inform them of the types of fossils that may be found and the procedures to follow if any are encountered.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant after Mitigation Incorporated. Although there is no indication that the Project would result in the disturbance of any human remains, in the event that human remains are encountered the following mitigation measure shall be implemented. Adherence would ensure that impacts are less than significant.

- **CR-4:** If human remains are uncovered, or in any other case where human remains are discovered, the Tulare County Coroner is to be notified to arrange their proper treatment and disposition. If the remains are identified – on the basis of archaeological context, age, cultural associations, or biological traits – as those of a Native American, California Health and Safety Code 7050.5 and Public Resources Code 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC will then identify the Most Likely Descendent who will be afforded an opportunity to make recommendations regarding the manner in which the remains are treated.

3.5.5 Cumulative Impacts

Less than Significant after Mitigation Incorporated. Neither the Project nor other cumulative development projects are expected to result in significant impacts to cultural, historical, archaeological, or paleontological resources, provided that appropriate evaluations are conducted on a case-by-case basis to determine whether the resources are "historical, archaeological, or paleontological," and appropriate mitigation measures, including but not limited to preservation in place, capping, or data recovery, are implemented prior to development. In addition, because the Project would not impact any known significant resources and potential impacts to unknown buried resources can be reduced to below a level of significance, the Project would not contribute to a cumulatively significant impact to cultural resources. Therefore, implementation of adopted plans and regulations and any

Project-specific mitigation measures would reduce any potential cumulative impacts related to cultural resources to a less-than significant level.

3.6 Geology and Soils

Table 3-17. Geology and Soils

Geology and Soils				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
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 Chapter 18 of the most recently adopted California Building Code creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

3.6.1 Environmental Setting

Geological Setting: The San Joaquin Valley is surrounded on the west by the Coast Ranges, on the south by the San Emigdio and Tehachapi Mountains, on the east by the Sierra Nevada, and on the north by the Sacramento-San Joaquin Delta and Sacramento Valley. The northern portion of the San Joaquin Valley drains toward the Delta by the San Joaquin River and its tributaries, the Fresno, Merced, Tuolumne, and Stanislaus Rivers. The southern portion of the Valley is internally drained by the Kings, Kaweah, Tule, and Kern Rivers, which flow into the Tulare drainage basin including the beds of the former Tulare, Buena Vista, and Kern Lakes.[15]

[15] Department of Water Resources, 2004. California's Groundwater Update Bulletin 118. San Joaquin Valley Groundwater Basin: Kaweah Subbasin. http://www.water.ca.gov/groundwater/bulletin118/basindescriptions/5-22.11.pdf Date Accessed: 7/5/2016

The Kaweah Subbasin lies between the Kings Groundwater Subbasin on the north, the Tule Groundwater Subbasin on the south, crystalline bedrock of the Sierra Nevada foothills on the east, and the Kings River Conservation District on the west. Major rivers and streams in the subbasin include the Kaweah and St. John's Rivers, with the Kaweah River the primary source of recharge to the Project area. Average annual precipitation is 7 to 13 inches, increasing eastward.[16]

The natural site soil consists of Holocene age fan deposits. The general earth material profile below the Project site consists of silty sand and sandy silt, underlain by laterally discontinuous alternating layers of poorly graded sand, sandy silt, silty sand, and sandy clay to a depth of at least 81.5 feet below ground surface (bgs).[17]

Soils Setting: Surface soils at the Project site have been mapped by the NRCS. The three soils types found on the site are Nord fine sandy loam, Grangeville sandy loam, and Nord fine sandy loam.[18] Both the Grangeville sandy loam and Nord fine sandy loam soil types are characterized as having low shrink-swell potential. Both have also been characterized as having low corrosivity potential for concrete and high corrosivity potential for steel.[19]

The topography of the Project site is characterized by low relief and elevations that gently slope toward the southwest at a slope of approximately 0 to 0.2 percent. Surface elevations at the Project site range from approximately 355 feet above mean sea level (amsl) in the east to 350 feet amsl in the west. See **Figure 2-2**

Geologic Hazards: There are no known active earthquake faults in the Visalia area. The closest active faults are Owens Valley fault group and Sierra Nevada Fault Zone (75 miles to the east of Visalia), the San Andreas Fault Zone (60 miles to the west), and an unnamed fault group north of Bakersfield (60 miles to the south). Major earthquakes such as the 1906 San Francisco, 1952 Kern County, and 1983 Coalinga quakes were felt and caused some minor to moderate property damage in Visalia. The 2019 Ridgecrest earthquake was the most recent major earthquake felt in Visalia, registered at 7.1 magnitude. It is possible, but unlikely, that previously unknown faults could become active in the area.[20]

The purpose of the Alquist-Priolo Geologic Hazards Zones Act, as summarized in CGS Special Publication 42 (SP 42), is to "prohibit the location of most structures for human occupancy across the traces of active faults and to mitigate thereby the hazard of fault-rupture." As indicated by SP 42, the State Geologist is required to delineate "earthquake fault zones" along known active faults in California. Cities and counties affected by the zones must regulate certain development 'projects' within the zones. They must withhold development permits for sites within the zones until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting. The State Geologist has not delineated any Alquist-Priolo Earthquake Fault Zones within or near the City.[21]

Seismic Ground Shaking: The most significant hazard associated with earthquakes for the Visalia area is ground shaking caused by earthquakes along the San Andreas Fault to the west or Owens Valley fault to the east. Ground shaking is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake and is normally the major cause of damage in seismic events. The extent of ground shaking results from the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. Based on available online Seismic Hazard Zone Maps by the California Geological Survey, the Project is located in an area that has not been mapped for seismic hazards. Based on the California Geological Survey Probabilistic

[16] Department of Water Resources, 2004. California's Groundwater Update Bulletin 118. San Joaquin Valley Groundwater Basin: Kaweah Subbasin. http://www.water.ca.gov/groundwater/bulletin118/basindescriptions/5-22.11.pdf Date Accessed: 7/5/2016
[17] Technicon Engineering Services, Inc. Geotechnical Investigation Report, Proposed East Side Regional Park and Groundwater Recharge Project, Mineral King Ave & Road 152, Visalia, California
[18] NRCS, Custom Soil Resource Report for Tulare County, Western Part, California, Eastside Park Project, January 15, 2015
[19] United States Department of Agriculture, Natural Resources Conservation Science, 2003. Soil Survey of Tulare County, California, Western Part . http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/tulare_westCA2003/tulareCAwpart2003.pdf Date Accessed: 7/5/2016
[20] City of Visalia, 2014. General Plan Update 2030 – Chapter 8: Safety and Noise. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30480 Page 8-2. Date Accessed: 7/5/2016
[21] Ibid.

Seismic Hazards Mapping Ground Motion Page, there is a 10 percent probability of earthquake ground motion exceeding 0.150 g (a fraction of the acceleration due to gravity) at the Project location over a 50-year period.[22]

According to the California Geological Survey and United States Geological Survey Probabilistic Seismic Hazard Analysis, the hazards due to ground shaking are considered to be low. The analysis is based on historic earthquakes, slip rates on major faults and deformation throughout the region, and the potential for amplification of seismic waves by near-surface geologic materials. The resulting earthquake shaking potential is used in developing building code design values, estimating future earthquake losses and prioritizing earthquake retrofit. In the Visalia area, low levels of shaking, with less frequency, are expected to damage only weaker masonry buildings. However, very infrequent earthquakes could still cause strong shaking.[23, 24]

Ground Rupture: Surface rupture occurs when the ground surface is broken due to fault movement during an earthquake. The location of surface rupture generally can be assumed to be along an active or potentially active major fault trace. Earthquake-induced ground failures, such as ruptures, lateral spreading, ground lurching, seiches, or mudslides, are unlikely to occur in the Visalia area due to the relatively stable geologic formation and lack of active faults.[25] The potential for fault rupture at the Project site is negligible.

Slope Stability: A landslide is a mass of rock, soil, and debris displaced downslope by sliding, flowing, or falling. Ground failure is dependent on topography and underlying geologic materials, as well as factors such as rainfall, excavation, or seismic activities that can lead to slope instability. The City is in a relatively flat area with relatively small foothills located approximately 8 to 10 miles to the east. Elevations across the Project site vary by less than approximately five feet. The Project site is not in an area susceptible to slope failure or landslides.

Erosion: Erosion is the process by which the soil and rock components of the earth's crust are worn away and removed from one place to another by natural forces such as weathering, solution, and transportation. Soil erosion can lead to sedimentation of watercourses, eventually having an adverse impact on water quality and aquatic life. Furthermore, once erosion occurs, it may be difficult for natural vegetation to reestablish itself. The loss of topsoil to erosion is detrimental to agriculture and landscaping. The risk of erosion is greatly increased during grading and construction activities, and agricultural practices, when soils are loosened and are bare of vegetation. Soil erodibility can be identified by a specific soil's "K-Factor." Values of K can range from 0.02 to 0.69, with the higher the value, the more susceptible the soil is to erosion. Soils with K factors above 0.40 are considered to be the most susceptible to erosion.[26] Surface soils at the Project site have been mapped as having K factors of 0.15 to 0.24, which are considered low to moderate for soil erosion susceptibility.[27, 28]

Liquefaction: Liquefaction is a soil condition in which seismically induced ground motion causes an increase in soil water pressure in saturated, loose, sandy soils, resulting in loss of soil shear strength. Liquefaction can lead to near-surface ground failure, which may result in loss of foundation support and/or differential ground settlement. Sandy deposits deeper than 30 feet bgs usually are not prone to causing surface damage. In addition, soils above the groundwater table (soils that are not saturated) would not liquefy.

Technicon Engineering Services, Inc. (Technicon) conducted geotechnical investigations at the Project site in 2014 and 2015 (**Appendix J**). During those investigations, groundwater was encountered at depths of approximately 76 and 71.5 feet bgs, respectively. It is possible that groundwater conditions could vary between

[22] California Department of Conservation. http://www.quake.ca.gov/gmaps/PSHA/psha_interpolator.html Date Accessed: 7/5/2016
[23] City of Visalia, 2014. General Plan Update 2030 – Chapter 8: Safety & Noise. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30480 Page 8-2. Date Accessed: 7/5/2016
[24] California Geological Survey & United States Geological Survey, 2008. Earthquake Shaking Potential for California, Map Sheet 48. http://www.conservation.ca.gov/cgs/information/publications/ms/documents/ms48_revised.pdf Date Accessed: 7/6/2016
[25] City of Visalia, 2014. General Plan Update 2030 – Chapter 8: Safety & Noise. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30480 Page 8-4. Date Accessed: 7/5/2016
[26] City of Visalia, 2014. General Plan Update 2030 – Chapter 6: Open Space and Conservation. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30478 Page 6-14. Date Accessed: 7/7/2016.
[27] NRCS, Custom Soil Resource Report for Tulare County, Western Part, California, Eastside Park Project, January 15 2015
[28] City of Visalia, 2014. General Plan Update 2030 – Chapter 6: Open Space and Conservation. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30478 Page 6-15. Date Accessed: 7/7/2016

boring locations or change sometime in the future due to variations in rainfall, groundwater withdrawal or recharge, agricultural activities, or other factors not apparent at the time of the 2014 and 2015 investigations. The granular soils encountered in the borings during the investigations had a relative consistency of medium dense to dense.[29]

Areas most prone to liquefaction are those that are water saturated (e.g., where the water table is less than 30 feet below the surface) and consist of relatively uniform sands that are low to medium density.

Subsidence: Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. The Kaweah Subbasin that underlies the Visalia area is designated by the Department of Water Resources (DWR) as being critically overdrafted. According to the California Water Service (CalWater) 2015 Urban Water Management Plan (UWMP) for the Visalia District, groundwater elevations have declined up to 55 feet between 1990 and 2015.[30] While groundwater recharge efforts are in progress, groundwater levels would continue to decline unless recharge is increased.

As part of its 2014 and 2015 investigations, Technicon drilled soil borings to as deep as 81.5 feet bgs. Soil logs from the investigations indicate that soils below the Project site generally consist of silty sands, clayey sands, sandy silts, and poorly graded sands and gravels.[31] Soils with high silt or clay content are particularly subject to subsidence. While the soils below the Project site appear to be relatively low in silts and clays to at least approximately 81.5 feet bgs, soil types below that depth are unknown. Subsidence may occur in the Visalia area, particularly in areas with high clay content soils or due to groundwater withdrawal.[32]

Collapsible Soil Conditions: Alluvial soils in arid and semi-arid environments have the tendency to possess characteristics that make them prone to collapse with an increase in moisture content and without increase in external loads, a condition known as hydro-compaction. The Project is located in a geologic environment where the potential exists for collapsible soils

Expansive Soil: Expansive soil consists of naturally-occurring fine-grained clay. It is generally found in areas that were historically a flood plain or lake area but can occur in hillside areas also. Expansive soil is subject to swelling and shrinkage, varying in proportion to the amount of moisture present in the soil. As water is initially introduced into the soil (by rainfall or watering), expansion takes place. If dried out, the soil would contract, often leaving small fissures or cracks. Excessive drying and wetting of the soil can progressively deteriorate structures over the years by leading to differential settlement within buildings and other improvements.

As discussed, surface soils at the Project site consist primarily of Nord fine sandy loam and Grangeville sandy loam. Both of these soil types are characterized as having low shrink-swell potential.[33]

Based on information presented in the City General 2030 General Plan Update EIR, there are no expansive soils located at the Project site.[34]

[29] Technicon Engineering Services, Inc. Geotechnical Investigation Report, Proposed East Side Regional Park and Groundwater Recharge Project, Mineral King Ave & Road 152, Visalia, California
[30] California Water Service, 2015. 2015 Urban Water Management Plan: Visalia District. https://www.calwater.com/conservation/uwmp/vis/ Date Accessed: 7/7/2016
[31] Technicon Engineering Services, Inc. Geotechnical Investigation Report, Proposed East Side Regional Park and Groundwater Recharge Project, Mineral King Ave & Road 152, Visalia, California
[32] City of Visalia, 2014. General Plan Update 2030 – Chapter 8: Safety & Noise. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30480 Page 8-1. Date Accessed: 7/5/2016
[33] United States Department of Agriculture, Natural Resources Conservation Science, 2003. Soil Survey of Tulare County, California, Western Part . http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/tulare_westCA2003/tulareCAwpart2003.pdf Date Accessed: 7/5/2016
[34] City of Visalia, 2014. General Plan Update DEIR – Chapter 3.7: Geology and Soils. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30497 Date Accessed: 7/7/2016

3.6.2 Regulatory Setting

Federal

There are no federal regulations pertaining to geology and soils that are applicable to the Project.

State

Alquist-Priolo Earthquake Fault Zoning Act (1972)

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act) requires the delineation of Fault Rupture Hazard Zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active fault traces to reduce the hazard of fault rupture; however, surface fault rupture is not necessarily restricted to the area within these Zones. The Alquist-Priolo Act prohibits the location of most structures for human occupancy across active fault traces. Within these zones, cities and counties must regulate certain development, which includes withholding permits until geologic investigations demonstrate that development sites are not threatened by the potential of future surface displacement. There are no designated Alquist-Priolo zones in the Project area.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a Seismic Hazard Zone, a geotechnical investigation of the site must be conducted, and appropriate mitigation measures incorporated into the project design. Geotechnical investigations conducted within Seismic Hazard Zones must incorporate standards specified by California Geologic Survey (CGS) Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards.[35] The purpose of the Seismic Hazard Mapping Act is to identify where special provisions, beyond those contained in the California Building Code (CBC), are necessary to ensure public safety. This need has not been recognized for the hazard of ground shaking.

Design provisions contained in the CBC are believed to be representative of current knowledge and capability in earthquake-resistant design.[36] No portion of County has been mapped under the Seismic Hazards Program.

California Building Standards Code

The CBC, codified in Title 24 Part 2 of the California Code of Regulations (CCR), is administered by the California Building Standards Commission which by law is responsible for coordinating all building standards. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction. The current version took effect January 1, 2020, and contains necessary California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standards 7-05. ASCE 7-05 provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (flood, snow, wind, etc.) for inclusion into building codes. The provisions

[35] California Geological Society, 1997. Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California. http://gmw.consrv.ca.gov/shmp/webdocs/sp117.pdf Date Accessed: 7/8/2016

[36] California Building Code, 2016. Chapter 16: Structural Design. http://codes.iccsafe.org/app/book/content/2016%20California%20Codes/Building%20Volume%202/Chapter%2016%20Structural%20Design.pdf Date Accessed: 8/29/2016

apply to the construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients which are used to determine a Seismic Design Category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site and ranges from SDC A (very small seismic vulnerability) to SDC E/F (very high seismic vulnerability and near a major fault). Design specifications are then determined according to the SDC.

California Department of Transportation

Caltrans jurisdiction includes State and interstate routes within California. Any work within the right-of-way of a federal or State transportation corridor is subject to Caltrans regulations governing allowable actions and modifications to the right-of-way. Caltrans standards incorporate the CBC and contain numerous rules and regulations to protect the public from seismic hazards such as surface fault rupture and ground shaking. In addition, Caltrans standards require that projects be constructed to minimize potential hazards associated with cut and fill operations, grading, slope instability, and expansive or corrosive soils, as described in the Caltrans Highway Design Manual (HDM). The southern portion of the Project site abuts SR 198, and Houston Avenue (SR 216) abuts the northern portion of the site; any work that is done within Caltrans right-of-way would be coordinated with Caltrans.

Local

City of Visalia General Plan

- Objective S-O-1: Minimize risks of property damage and personal injury posed by geologic and seismic hazards.
- Policy OCS-P-25: Require new development to implement measures, as appropriate, to minimize soil erosion related to grading, site preparation, landscaping and construction.

City of Visalia General Plan Seismic Safety Element

The Visalia General Plan incorporates the Seismic Safety Element completed in 1974 by the Five-County Seismic Safety Committee, with participation from the Tulare Council of Governments. The Safety Element determines that ground shaking is the main potential hazard in the southern Central Valley, and the risk of ground shaking in the Visalia area is low. The Element includes a number of policies, calling for the creation of a public relations and education program to build awareness; development of an Earthquake Disaster Plan; consideration of seismic hazards in the environmental impact assessment process; and adoption and enforcement of the Uniform Building Code (since replaced by the CBC), among others.

City of Visalia Building Code

The City has adopted the 2019 CBC as the City's building code and ordinance (Title 15: Buildings and Construction).

Tulare County Multi-Jurisdictional Hazard Mitigation Plan

A hazard mitigation plan is a formal document that outlays the plans to reduce or eliminate the long-term risk to human life and property from natural or manmade hazards. Visalia participates in the preparation of the Multi-Jurisdictional Local Hazard Mitigation Plan (MJ-LHMP) which covers the County, the eight cities within the County, the Tulare County Office of Education, and the Tule River Tribe. The latest adopted MJ-LHMP was prepared in 2018. The plan has been designed to meet four goals; (1) significantly reduce life loss and

injuries, (2) minimize damage to structures and property, as well as disruption of essential services and human activities, (3) protect the environment, and (4) promote hazard mitigation as an integrated public policy.

3.6.3 Impact Assessment

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

a-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.

Less than Significant Impact. There are no known active earthquake faults in the Visalia area; therefore, the Project Site is not located within or adjacent to a Fault-Rupture Hazard Zone. For this reason, it is unlikely that an earthquake would result in surface rupture at the Project location. Impacts would be less than significant.

a-ii) Strong seismic ground shaking?

Less than Significant Impact. The Project location is located within approximately 26 miles of seismically active parts of California and is likely to undergo seismic ground shaking at some point. Based on the California Geological Survey Probabilistic Seismic Hazards Mapping Ground Motion Page, there is a 10 percent probability of earthquake ground motion exceeding 0.150g at the Project location over a 50-year period.[37]

All proposed structures must be designed to comply with the CBC, which provides minimum standards to safeguard against major failures and loss of life by requiring that structures: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage; and 3) resist major earthquakes without collapse. The CBC bases seismic design on minimum lateral seismic forces ("ground shaking"), and operates on the principle that providing appropriate foundations, among other aspects, help to protect buildings from failure during earthquakes. Therefore, any impacts would be less than significant.

a-iii) Seismic-related ground failure, including liquefaction?

Less than Significant Impact. The Project Site has flat topography and is approximately 26 miles northwest of the nearest delineated Alquist-Priolo Earthquake Fault Zone. Although no specific liquefaction hazard has been identified, the potential for liquefaction is recognized throughout the San Joaquin Valley where unconsolidated sediments and high water tables coincide.[38] Geotechnical investigations conducted at the indicated that groundwater at the Project Site was at a depth greater than 70 feet bgs and that generally subsurface soils had a density greater than what is typical for significant liquefaction potential. The potential for liquefaction at the Project Site is considered to be low due to the absence of near-surface groundwater and the generally dense cohesive nature of the subsurface materials. Therefore, any impacts would be less than significant.

a-iv) Landslides?

No Impact. The Project Site is not in an area susceptible to slope failure or landslides. Therefore, there would be no impact.

[37] California Department of Conservation. http://www.quake.ca.gov/gmaps/PSHA/psha_interpolator.html Date Accessed: 7/5/2016

[38] City of Visalia, 2014. General Plan Update DEIR – Chapter 3.7: Geology and Soils. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30497 Date Accessed: 7/7/2016

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Surface soils at the Project Site have been mapped as having K factors of 0.15 to 0.24, which are considered low to moderate for soil erosion susceptibility.[39] [40] This combined with the generally flat terrain of the Project setting indicates that potential for substantial soil erosion or loss of topsoil is less than significant.

The risk of erosion is greatly increased during grading and construction activities and agricultural practices, when soils are loosened and are bare of vegetation. In general, soil conservation is addressed by the City's site review and grading plan requirements (e.g., Policy OCS-P-25). Therefore, any impacts would be less than significant.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact. As the Project is located on the Valley floor, no geologic landforms exist on or near the site that would result in a landslide event. Excavation, grading, and fill operations associated with construction could alter existing slope profiles making them unstable as a result of over-excavation of slope material, steepening of the slope, or increased loading. However, destabilization of natural or constructed slopes is unlikely to occur as surface topography at the project site is relatively flat. The Project is required to implement erosion prevention measures as part of its SWPPP. Additionally, standard engineering design features and construction procedures would be implemented to maintain stable slopes and excavations during construction, and therefore, impacts associated with destabilized slopes would be less than significant.

d) Would the project be located on expansive soil, as defined in Chapter 18 of the most recently adopted California Building Code creating substantial risks to life or property?

No Impact. Grangeville sandy loam and Nord fine sandy loam soil types are characterized as having low shrink-swell potential.[41] Additionally, based on information presented in the 2030 General Plan Update EIR, there are no expansive soils located at the Project Site.[42]

The absence of on-site expansive soils would be verified during a comprehensive Geotechnical Investigation Report to address the park design concept, arrangement of basins, pavements, and infrastructure. Appropriate design features to address expansive soils would include excavation of potentially problematic soils during construction and replacement with engineered backfill, ground-treatment processes, direction of surface water and drainage away from foundation soils, and the use of deep foundations such as piers or piles. Implementation of any of these standard engineering methods would ensure that there are no impacts associated with expansive soils.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. Soil permeability is a consideration for projects that require septic system installation. The Project would tie into the City's wastewater system. The City has determined that capacity exists to serve the Project.

[39] NRCS, Custom Soil Resource Report for Tulare County, Western Part, California, Eastside Park Project, January 15, 2015
[40] City of Visalia, 2014. General Plan Update 2030 – Chapter 6: Open Space and Conservation. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30478 Page 6-15. Date Accessed: 7/5/2016
[41] United States Department of Agriculture, Natural Resources Conservation Science, 2003. Soil Survey of Tulare County, California, Western Part. http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/tulare_westCA2003/tulareCAwpart2003.pdf Date Accessed: 7/5/2016
[42] City of Visalia, 2014. General Plan Update DEIR – Chapter 3.7: Geology and Soils. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30497 Date Accessed: 7/7/2016

As planned, the Project would not involve the installation of a septic tank or an alternative wastewater disposal system. There would be no impact.

3.6.4 Cumulative Impacts

Less than Significant Impact. Geotechnical impacts related to future development in the City involve hazards related to site-specific soil conditions, erosion, and ground-shaking during earthquakes. The impacts on each site are specific to that site and its users and would not be in common or contribute to (or shared with, in an additive sense) the impacts on other sites. In addition, development on each site is subject to uniform site development and construction standards that are designed to protect public safety. Therefore, cumulative geotechnical impacts would be less than significant.

3.7 Greenhouse Gas Emissions

Table 3-18. Greenhouse Gas Emissions

Greenhouse Gas Emissions					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.7.1 Environmental Setting

"Gases that trap heat in the atmosphere are often called greenhouse gases (GHG). Some GHG such as carbon dioxide occur naturally and are emitted to the atmosphere through natural processes and human activities. Other GHG (e.g., fluorinated gases) are created and emitted solely through human activities. The principal GHG that enter the atmosphere because of human activities are:

- Carbon Dioxide (CO_2): Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement, asphalt paving, truck trips). Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- Methane (CH_4): Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- Nitrous Oxide (N_2O): Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
- Fluorinated Gases: Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful GHG that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons).

These gases are typically emitted in smaller quantities, but because they are potential GHG, they are sometimes referred to as High Global Warming Potential gases ("High GWP gases")".

3.7.2 Methodology

An Air Quality & Greenhouse Gas Impact Assessment was completed by VRPA Technologies, Inc. in March 2019. The Assessment Report includes an Air Quality and Greenhouse Gas model completed in September 2017 using CalEEmod 2016.3.1. and is attached as **Appendix C**.

3.7.3 Regulatory Setting

Federal

Section 202 GHG Regulation of Cars and Light Duty Trucks

This rule was proposed jointly by EPA and the National Highway Traffic Safety Administration to create a national program of GHG emission standards and Corporate Average Fuel Economy standards. The standards apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards are designed to achieve a national vehicle fleet whose emissions and fuel economy performance improves year after year. The goal is to reduce CO_2 emissions by 960 million metric tons and save 1.8 billion barrels of oil over the lifetime of vehicles sold in model years 2012 through 2016.[43] The final rule was signed on April 1, 2010, and became effective 60 days after its publication in the Federal Register.

Greenhouse Gas Findings (2009)

In the United States Supreme Court case *Massachusetts v. EPA*, 549 U.S. 497 (2007), 12 states, three cities, and 13 environmental groups filed suit that the EPA should be required to regulate carbon dioxide and other GHG as pollutants under the CAA. In April 2007, the United States Supreme Court found that the EPA has a statutory authority to formulate standards and regulations to address GHG, which it historically had not done. On December 7, 2009, the EPA Administrator finalized two findings to be effective January 14, 2010. The findings are related to GHG under section 202(a) of the CAA. These findings do not themselves impose any requirements on industry or other entities.

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed GHG from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.[44]

Executive Order 13154 Federal Leadership in Environmental, Energy, and Economic Performance

On October 5, 2009, President Obama issued Executive Order 13154, which instructs federal agencies to set or achieve various emissions reduction and energy and environmental benchmarks by 2015, 2020, and 2030. The order requires agencies to set GHG emissions reduction targets for 2020 within 90 days and requires Office of Management and Budget to set a federal government target for 2020 within 120 days. The order also sets out required reductions in vehicle fleet petroleum use and requires increases in water and energy efficiency and in recycling and waste diversion rates. The order also mandates adoption of certain contract and procurement practices designed to promote energy and water efficiency and environmentally preferable products.

Energy Policy and Conservation Act, and Corporate Average Fuel Economy (CAFÉ) Standards

The Energy Policy and Conservation Act (EPCA) of 1975 declared it to be United States policy to establish a reserve of up to 1 billion barrels of petroleum and established nationwide fuel economy standards in order to conserve oil. Pursuant to this Act, the National Highway Traffic and Safety Administration, part of the DOT is responsible for revising existing fuel economy standards and establishing new vehicle fuel economy standards.

[43] EPA, 2010.
[44] EPA, 2009.

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. The CAFE values are a weighted harmonic average of the EPA city and highway fuel economy test results. Based on information generated under the CAFE program, the DOT is authorized to assess penalties for noncompliance.

CAFE rules require the average fuel economy of all vehicles of a given class that a manufacturer sells in each model year to be equal or greater than the standard. CAFE standards apply to passenger cars and light trucks (gross vehicle weight of 8,500 pounds or less). Heavy-duty vehicles (i.e. gross vehicle weight over 8,500 pounds) are not currently subject to fuel economy standards. The EPCA was reauthorized in 2000 (49 CFR 533). The Energy Independence and Security Act of 2007 revised CAFE standards for the first time in 30 years, followed quickly by Section 202 GHG Regulation of Cars and Light Duty Trucks, which calls for further revision of the CAFE standards. Both of those regulations are described above.

Energy Policy Acts of 1992, 2005, etc. (EPAct)

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions would be allowed for businesses and individuals to cover the incremental cost of AFVs. The Act also requires states to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 includes updated provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Global Change Research Act (1990)

The purpose of the legislation was: "…to require the establishment of a United States Global Change Research Program aimed at understanding and responding to global change, including the cumulative effects of human activities and natural processes on the environment, to promote discussions towards international protocols in global change research, and for other purposes." To that end, the Global Change Research Information Office was established in 1991 (it began formal operation in 1993) to serve as a clearinghouse of information. The Act requires a report to Congress every four years on the environmental, economic, health and safety consequences of climate change; however, the first and only one of these reports to-date, the National Assessment on Climate Change, was not published until 2000. In February 2004, operational responsibility for Global Change Research Program shifted to the U.S. Climate Change Science Program.

State

There are a variety of statewide rules and regulations which have been implemented or are in development in California and which mandate the quantification or reduction of GHGs. Under CEQA, an analysis and mitigation of emissions of GHGs and climate change in relation to a Project is required where it has been determined that a project would result in a significant addition of GHGs. Certain APCDs have proposed their own levels of significance. The SJVAPCD, which has regulatory authority over the air emissions from this project, has not established a significance threshold.

California Air Resources Board

Refer to **Section 3.3.4 Regulatory Setting**.

California Attorney General

The Attorney General has a special role in protecting the environment and public health in California. By law, the Attorney General has independent authority, acting directly in the name of the People, "to act to protect the natural resources of the State of California from pollution, impairment, or destruction." The Attorney General plays a leading role in the oversight and enforcement of CEQA and the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). The Attorney General also prosecutes civil and criminal violations of environmental laws in the name of the People of the State of California and on behalf of client agencies.

CEQA Guidelines Appendix F: Energy Conservation

Appendix F of the CEQA Guidelines describes the types of information and analyses related to energy conservation that are to be included in the EIR process. Energy conservation is described in terms of decreasing per capita energy consumption; decreasing reliance on fossil fuels such as coal, natural gas, and oil; and increasing reliance on renewable energy sources. To assure that energy implications are considered in project decisions, EIRs must include a discussion of the potentially significant energy impacts of Projects (to the extent relevant and applicable to the Project), with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

Executive Order S-3-05: Executive Order S-3-05 was established by Governor Arnold Schwarzenegger in June 2006.

Executive Order S-3-05 establishes statewide emission reduction targets through the year 2050:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels; and
- by 2050, reduce GHG emissions to 80 percent below 1990 levels.

This Executive Order does not include any specific requirements that pertain to the Project. However, actions taken by the State to implement these goals may affect the Project, depending on the specific implementation measures that are developed.

Senate Bill 1368: Senate Bill 1368 (SB 1368) was enacted in 2006 and required the California Public Utilities Commission (CPUC) to establish a CO_2 emissions standard for base load generation owned by or under long-term contract with publicly owned utilities. The CPUC established a GHG Emissions Performance Standard (EPS) of 1,100 pounds of CO_2 per megawatt-hour. SB 1368 also requires the posting of notices of public deliberations by publicly owned companies on the CPUC website and establishes a process to determine compliance with the EPS. The Project, as a renewable energy generation facility, is determined by rule to comply with the GHG Emission Performance Standard requirements of SB 1368.

Assembly Bill 32: California passed the California Global Warming Solutions Act of 2006 (AB 32, codified at HSC Sections 38500-38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction would be accomplished by enforcing a statewide cap on GHG emissions that would be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations

cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. Using these criteria to reduce statewide GHG emissions to 1990 levels by 2020 would represent an approximate 25 to 30 percent reduction in current emissions levels. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions. Under AB 32, CARB was required to adopt regulations by January 1, 2011, to achieve reductions in GHGs to meet the 1990 emission cap by 2020. In 2019, CARB disclosed that emissions in 2017 were 7 million metric tons of CO_2 equivalent (MMT CO_2e) below the State 2020 limit.

Senate Bill 375: SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires MPOs to adopt a sustainable community strategy (SCS) or alternative planning strategy (APS) that would prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, would provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets would be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPOs SCS or APS for consistency with its assigned targets.

This law also extends the minimum time period for the regional housing needs allocation cycle from five years to eight years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

Office of Planning and Research Technical Advisory: Consistent with SB 97, on June 19, 2008 the Office of Planning and Research (OPR) released its *Technical Advisory on CEQA and Climate Change*, which was developed in cooperation with the Resources Agency, the California Environmental Protection Agency (CalEPA), and CARB. The *Technical Advisory* offers the informal interim guidance regarding the steps lead agencies should take to address climate change in their CEQA documents, until CEQA guidelines are developed pursuant to SB 97 on how state and local agencies should analyze, and when necessary, mitigate GHG.

According to OPR, lead agencies should determine whether GHG may be generated by a Project, and if so, quantify or estimate the GHG emissions by type and source. Second, the lead agency must assess whether those emissions are individually or cumulatively significant. When assessing whether a project's effects on climate change are "cumulatively significant" even though project specific GHG contribution may be individually limited, the lead agency must consider the impact of the project when viewed in connection with the effects of past, current, and probable future projects. Finally, if the lead agency determines that the GHG emissions from the project as proposed are potentially significant, it must investigate and implement ways to avoid, reduce, or otherwise mitigate the impacts of those emissions.

On April 13, 2009 OPR sent proposed amendments of the CEQA Guidelines to the Secretary of the Resources Agency for promulgation. The proposed amendments contain Model Policies for GHGs in General Plan. OPR recommended changes to fourteen sections of the existing guidelines, including: the determination of

significance as well as thresholds; statements of overriding consideration; mitigation; cumulative impacts; and specific streamlining approaches. The proposed Guidelines also include an explicit requirement that EIRs analyze GHG emissions resulting from a project when the incremental contribution of those emissions may be significant. OPR adopted new amendments in 2018; however, these amendments to the CEQA Guidelines apply prospectively only.

California Energy Code: Title 24, Part 6 of the California Code of Regulations, called the California Energy Code, includes standards mandating energy efficiency measures in new construction, as well as retrofitting existing buildings. Since its establishment in 1977, the building efficiency standards (along with standards for energy efficiency in appliances), which regulate energy consumed in buildings for heating, cooling, ventilation, water heating, and lighting, have contributed to a reduction in electricity and natural gas consumption in California. The standards are updated every three years to allow new energy efficiency technologies to be considered. The latest update to Title 24 standards became effective January 1, 2020.

California Green Code: CalGreen, the nation's first Green Building Standards Code, became effective in August 2009 for voluntary compliance and local adoption, and became effective for mandatory compliance on January 1, 2011. This Code establishes minimum standards for new construction that are intended to help the State achieve the AB 32 goal of reducing GHG emissions to 1990 levels by 2020. In addition to energy efficiency standards, CalGreen includes mandatory measures for water conservation, storm water drainage and retention, material conservation, and construction waste reduction. The requirements for nonresidential construction also include parking, landscaping, and other standards. Local jurisdictions have the option of adopting procedures by ordinance to improve the level of construction beyond the CalGreen minimum standard.

Local

Visalia Climate Action Plan (CAP)

Refer to **Section 3.3.4 Regulatory Setting**.

Visalia's Climate Change Initiatives

In January 2007, City's mayor signed the "Cool Cities" pledge, part of the U.S. Mayors Climate Protection Agreement. By entering into this agreement, the City originally adopted the goal of reducing citywide GHG emissions to 7% below 1990 levels by 2012. As detailed in the CAP, this goal was subsequently expanded in response to CARBs recommended reduction target of 15% below the 2005 baseline, and the City added a 2030 mitigation target to correlate with the 2030 GP Update and the goal of achieving an 80% reduction by 2050.

In 2008, the City also became a partner with the San Joaquin Valley Clean Energy Organization (SJVCEO), which is a non-profit serving the eight-county region. This partnership led to the development of the Valley Innovative Energy Watch, which is a partnership with SCE, Southern California Gas Company (SoCalGas), Pacific Gas & Electric, SJVCEO, and other public jurisdictions in Tulare and Kings Counties. One major task in this initiative was assisting each of the local government partners to develop comprehensive clean energy/GHG reduction plans, including the identification of baseline GHG emissions and energy use.

San Joaquin Valley Air Pollution Control District

SJVAPCD adopted a Climate Change Action Plan in August 2008. While the plan does not have regulatory powers, it directs SJVAPCD to develop guidance to assist District staff, Valley businesses, land-use agencies, and other permitting agencies in addressing GHG emissions as part of the CEQA process. The CCAP also directs District staff to investigate and develop a greenhouse gas banking program, enhance the existing emissions inventory process to include greenhouse gas emissions reporting consistent with new State requirements, and administer voluntary greenhouse gas emission reduction agreements. The CCAP Final Draft Staff Report concludes that while existing science is inadequate to support characterization of impacts that

project specific GHG emissions have on global climatic change, the cumulative impact of all the projects is best addressed by requiring all projects subject to CEQA to reduce their GHG emissions through project design elements.

Since the adoption of the CCAP, SJVAPCD has published Best Performance Standards (BPS) for stationary sources and development projects, and guidance for valley land-use agencies in addressing GHG emissions for new projects under CEQA. However, the District has not published guidance related to large-scale, long-range planning projects such as general plans.

3.7.4 Impact Assessment

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

Less than Significant Impact. As shown in **Table 3-19**, the Project would generate 2,187.47 $MTCO_2e/yr$. The City has not adopted a greenhouse gas threshold, however CEQA Guidelines Section 15064.7(b) allows lead agencies to consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts.

On December 5, 2008, the South Coast Air Quality Management District (SCAQMD) Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. The SCAQMD guidance identifies a threshold of 7,000 $MTCO_2e/yr$ for GHG emissions. Though the Project is not within the SCAQMD jurisdiction, the SCAQMD GHG threshold was used to analyze the GHG emissions generated by the Project. **Table 3-20** shows the yearly GHG emissions generated by each Phase of the Project, which are approximately 98% (Phase 1), 81% (Phase 2), and 64% (Phase 3) less than the threshold identified by the SCAQMD.

Based on the assessment above, the Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Therefore, any impacts would be less than significant.

Table 3-19. Operational Greenhouse Gas Emissions

2005/2020 Operational Greenhouse Gas Emissions	
Summary Report	**CO_2e**
Operational Emissions Per Year (2020)	2,187.47 MT/yr
SCAQMD Level of Significance	7,000 MT/yr
Does the Project Meet the Standard?	No

Source: CalEEmod 2016.3.1.

Table 3-20. Phase 1, 2, and 3 Operational Greenhouse Gas Emissions

Phase 1, 2, and 3 Operational Greenhouse Gas Emissions	
Summary Report	**CO_2e**
Phase 1 Operational Emissions Per Year	172.84 MT/yr
Phase 2 Operational Emissions Per Year	1,296.05 MT/yr
Phase 3 Operational Emissions Per Year	2,552.30 MT/yr

Source: CalEEmod 2016.3.1.

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

Less than Significant Impact.

The City's CAP was created as one of the first key steps to guiding the development and enhancement of actions designed to reduce Visalia's GHG emissions. The CAP represents the results of a GHG emissions inventory effort which serves as a starting point for the development of a comprehensive municipal and community strategy for addressing GHG emission reduction goals. The CAP identifies existing and proposed community measures designed to reduce GHG emissions. The Project incorporates the following identified existing and proposed community measures assisting the City achieve its 2020 15% and 2030 30% reduction goals:

Expansion of bicycle paths, lanes, and trails: Based on the assessment above, the Project would further the achievement of the City's greenhouse gas reduction goals and would not conflict with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of GHG. Therefore, any impacts would be less than significant.

3.7.5 Cumulative Impacts

Less than Significant Impact. State action on climate change is mandated by AB 32 and SB 375. TCAG, along with other regional planning agencies throughout the state, would be monitoring the progress of State agencies in developing approaches to address GHG emissions. As agreed-upon approaches for project-level CEQA analysis and for transportation planning are established, TCAG expects that climate change would be a key environmental consideration in future regional transportation planning. TCAG, the City, and other agencies would be required to adhere to any future applicable mandatory regulations regarding global warming resulting from the passage of AB 32 and SB 375, but the exact character of such future implementing strategies is not known at this time.

While the cumulative significance of climate change has been established, in absence of established project-level significance thresholds, it is speculative at this time to determine whether the GHG emissions related to the Project represent a considerable contribution to a significant cumulative impact.

3.8 Hazards and Hazardous Materials

Table 3-21. Hazards and Hazardous Materials

Hazards and Hazardous Materials					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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 for people residing or working in the project area?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

3.8.1 Environmental Setting

A listing of contaminated sites within the City and the Project vicinity are available through the California Department of Toxic Substances Control (DTSC) Envirostor database. According to this listing, there are no hazardous waste sites listed within the vicinity of the Project.[45]

The Project is located 7.2 miles northwest of the Exeter Airport and 7.6 miles east of the Visalia Municipal Airport. The Project site is not within either airport's designated safety zone or airport influence area.

CAL FIRE designates both local and State Responsibility Areas for fire hazards throughout the State. Development of the Project would take place in an Unzoned Local Responsibility Area, which has a low fire hazard risk.[46]

3.8.2 Regulatory Setting

Federal

Occupational Health and Safety Administration

The Occupational Health and Safety Administration (OSHA) published standard 1910.120, addressing dangers that hazardous materials pose in the workplace. The standard requires that employers evaluate the potential health hazard that hazardous materials pose in the workplace and communicate information concerning hazards and appropriate protective measures to employees.

State

Department of Toxic Substances Control

The EPA has delegated much of its regulatory authority to the individual states. The DTSC of CalEPA enforces hazardous materials and waste regulations in California in conjunction with the EPA. The DTSC is responsible for regulating the management of hazardous substances, including remediation of sites contaminated by hazardous substances. California hazardous materials laws incorporate federal standards but are often more strict than federal laws.

Porter-Cologne Water Quality Control Act

The RWQCB is authorized by the SWRCB to enforce provisions of the Porter-Cologne Water Quality Control Act of 1969. This act gives the RWQCB authority to require groundwater investigations when the quality of groundwater or surface waters of the state are threatened and to remediate the site, if necessary.

[45] California Department of Toxic Substances Control. Envirostor Database: Hazardous Waste and Substances Site List. http://www.envirostor.dtsc.ca.gov/public/search.asp?page=10&cmd=search&business_name=&main_street_name=&city=&zip=&county=&status=ACT%2CBKLG%2CCOM&branch=&site_type=CSITES%2COPEN%2CFUDS%2CCLOSE&npl=&funding=&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST&reporttype=CORTESE&federal_superfund=&state_response=&voluntary_cleanup=&school_cleanup=&operating=&post_closure=&non_operating=&corrective_action=&tiered_permit=&evaluation=&spec_prog=&national_priority_list=&senate=&congress=&assembly=&critical_pol=&business_type=&case_type=&searchtype=&hwmp_site_type=&cleanup_type=&ocieerp=False&hwmp=False&permitted=&pc_permitted=&inspections=&complaints=&orderby=county. Date Accessed: 6/17/2016

[46] CalCAL FIRE, 2007. Tulare County Draft Fire Hazard Severity Zones in LRA. http://frap.fire.ca.gov/webdata/maps/tulare/fhszl06_1_map.54.pdf. Date Accessed: 6/17/2016

State Underground Storage Tank Program

State laws also regulate Underground Storage Tanks (USTs) and Aboveground Storage Tanks (ASTs) containing hazardous substances. These laws are primarily found in the Health and Safety Code, and, combined with CCR Title 23, establish the requirements of the State UST program. The laws contain requirements for UST permitting, construction, installation, leak detection monitoring, repairs and corrective actions and closures. In accordance with State laws, the County Department of Health Services Environmental Health Division implements UST and AST regulations in County.

Hazardous Materials Worker Safety Requirements

OSHA and the California Occupational Safety and Health Administration (Cal/OSHA) are the agencies responsible for assuring worker safety in the handling and use of chemicals in the workplace. The federal regulations pertaining to worker safety are contained in 29 CFR as authorized in the Occupational Safety and Health Act of 1970. They provide standards for safe workplaces and work practices, including standards relating to hazardous materials handling. In California, Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations; Cal/OSHA standards are generally more stringent than federal regulations.

The State regulations concerning the use of hazardous materials in the workplace are included in Title 8 of the CCR, and contain requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA also enforces hazard communication program regulations, which contain worker safety training and hazard information requirements, such as procedures for identifying and labeling hazardous substances, communicating hazard information relating to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites.

Local

Tulare County Environmental Health Division

In Visalia, the Tulare County Environmental Health Services Division (TCEHSD) is the local agency responsible for the implementation of the State-mandated Unified Hazardous Waste and Hazardous Materials Management Regulatory Program or Multi-Jurisdiction Local Hazard Mitigation Plan (MJLHMP). The County has prepared a Hazardous Materials Business Plan and the aforementioned MJLHMP, which serves as the County's emergency response plan for hazardous materials emergency incidents. In addition, the TCEHSD acts as lead agency to ensure proper remediation of leaking underground petroleum storage tank sites and certain other contaminated sites. TCEHSD provides three permanent Household Hazardous Waste drop-off facilities in the County including one in Visalia and operates mobile collection events throughout the year. These services are available free of charge to any County resident.

City of Visalia and Tulare County Fire Departments

The Visalia Fire Department (VFD) provides fire and life safety services for residents located within the city limits while the County Fire Department provides additional services for unincorporated areas of County. VFD maintains a daily staff of five paramedic engine companies, one truck company, and a Battalion Chief across six fire station locations. The engines and truck companies are staffed with three personnel, giving the VFD a daily minimum staffing of 19.[47] All stations are staffed with a paramedic at all times. The City requires all new development and subdivisions to meet or exceed California Fire Code provisions, and the City's Fire Department reviews development applications during the plan check process.

[47] http://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30502 Page 3.11-13. Accessed: August 8, 2016.

The VFD also provides oversight of hazardous materials. Itis responsible for conducting inspections for code compliance and fire-safe practices and for scene management and investigation of fire and hazardous materials incidents. According to VMC Chapter 8.32 (Hazardous Materials), an emergency situation created by a hazardous material release which poses an imminent risk to the life, health or safety of persons, property, or to the environment shall be mitigated in the manner prescribed and pursuant to the direction of the VFD. The VFD regulates explosive and hazardous materials under the California Fire Code, and permits the handling, storage and use of any explosive or other hazardous material. The City hosts "Dump-On-Us" events four times a year for city residents to drop off residential hazardous waste. Accepted items include small appliances, cell phones, fencing material, air conditioning/ heating units, tires, scrap metal, mattresses, yard waste, and other types of waste.

Waste Disposal Regulations

The disposal of contaminated soil is regulated by the RWQCB, in this case the Central Valley Region, and is regulated based on the concentrations of chemical constituents that are present. Soils having concentrations of contaminants higher than certain acceptable levels must be handled and disposed as hazardous waste when excavated. CCR Title 22, Section 66261.20-24 contains technical descriptions of characteristics that would cause a soil to be classified as a hazardous waste.

3.8.3 Impact Assessment

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

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

Less than Significant Impact. Construction of the Project components would necessitate the transport and use of small amounts of hazardous materials, such as gasoline, diesel, and oil. These materials would be used in excavation equipment, generators, and other typical construction equipment and would be contained in vessels designed for safe storage. Although appropriate handling and disposal practices would result in low potential for accidental release of hazardous materials during the construction phases, there is the potential for small leaks or spills. Standard construction and operational SWPPP BMPs, including the installation of regulated spill containment at each tank, would minimize the potential for the release of construction-related fuels and other hazardous materials. These BMPs would also help control storm water contamination from spills or leaks, control the amount of runoff from the site, and require proper disposal or recycling of hazardous materials. Impacts would be less than significant.

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

No Impact. The Project site is located approximately 0.5 mile southeast of Golden West High School. There are no schools either existing or proposed within a one-quarter mile radius. There would be no impact.

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?

No Impact. The Project site is not located on any designated hazardous materials site; therefore, no significant hazards would be created.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?; and,

No Impact. The Project is located within Tulare County and therefore is subject to the Tulare County Comprehensive Airport Land Use Plan, adopted in 2012 by the Tulare County Airport Land Use Commission. Given that the Project site is not located within the safety zones or airport influence areas of any public or public use airport, no safety hazards are present.

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

No Impact. The Project is not located within the vicinity of a private airstrip; therefore, no safety hazards would be posed.

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

Less than Significant Impact. The Project site does not currently contain any public accessed routes that would be needed for an emergency response or emergency evacuation. Completion of the Project would actually increase emergency accessibility via construction of Tower Street as a new arterial roadway, which would include new local street connections to the existing stub-streets in the residential subdivisions to the west of Project site. The Project would also provide three points of ingress and egress from the Project site. The impact would be less than significant.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The Project is located in an area designated as "Unzoned" by CAL FIRE; therefore, the area is not subject to significant risk involving wildland fire. Further, the Project does not involve residences; therefore, it would not result in the exposure of housing to risk of fires.

3.8.4 Cumulative Impacts

Less than Significant Impact. Cumulative impacts related to hazards and hazardous materials could occur where regional development patterns place structures and/or people in proximity to significant sources of safety hazards or hazardous materials emissions, or where regional patterns develop new cumulatively hazardous sources near sensitive receptors.

The Project would not result in cumulative impacts related to interference with an adopted emergency response plan in fact the Project would actually increase emergency accessibility via construction of the Tower Street extension, which would connect to stub-streets that currently have no outlet.

Accordingly, the Project would have less-than-cumulatively-considerable impacts regarding exposure of the public to hazards or hazardous materials.

3.9 Hydrology and Water Quality

Table 3-22. Hydrology and Water Quality

Hydrology and Water Quality					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e)	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?	☐	☐	☒	☐
f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

3.9.1 Environmental Setting

The following environmental setting was largely gathered from information found in the Environmental Impact Report prepared for the City's 2030 General Plan Update.[48]

Precipitation

The City has an average annual precipitation rate of 10.93 inches of rain per year. The summers are dry, with less than 0.1 inch of rain falling per month. The rainy season begins in October, with a monthly mean precipitation rate of 0.6 inches. Rains increase in December to a mean precipitation rate of 1.73 inches per month and maintain a similar range through March. In April, precipitation begins to slow again to 1 inch per month. The dry summer season begins in May.

Groundwater

The Project site is located in the heart of the Kaweah River alluvial fan that spreads out over the San Joaquin Valley floor. Groundwater in County is present in deposits of alluvium that are several thousand feet thick and occurs in both confined and unconfined conditions. The creeks and ditches on the Project site, like other surface water bodies in the area, are tied to the regional groundwater system. Seepage from the creek ultimately recharges groundwater.

The depth to groundwater varies significantly throughout the Valley floor area of County. In the area around Visalia, depth to groundwater varies from about 120 feet bgs along the western portion of the City to approximately 100 feet bgs to the east, as measured in spring 2010. Groundwater levels measured in the City have declined since the 1940s, from approximately 30 feet bgs in 1940 to 120 feet bgs in 2010. The Geotechnical Investigation Report prepared by Technicon stated that groundwater was encountered within in test borings B-13 and B-14 at depths of 76 and 71.5 feet bgs, respectively. It is possible that groundwater conditions at the site could vary between boring locations or could change at some time in the future due to variations in the rainfall, groundwater withdrawal or recharge, agricultural activities, or other factors not apparent at the time of our field reconnaissance.[49]

The Project site is up-gradient of much of the City, including the wells throughout the City that supply water to its residents and businesses; therefore, the Project would recharge the City's groundwater supply.

Surface Water

Visalia rests in the heart of the Kaweah River alluvial fan distributary waterway system, which results in many rivers and creeks that flow through the City. Major surface water resources in the area include the St. John's River, Modoc Ditch, Mill Creek, North Mill Creek, TID Canal, Packwood Creek, Cameron Creek, Deep Creek, Oakes Ditch, Evans Ditch, Persian Ditch, Watson Ditch and several other local ditches. Prior to the agricultural development that occurred in the Central Valley in the mid-to-late 1800s, most of the creeks and rivers were intermittent drainages that receive a significant portion of flow from storm water runoff during the rainy season. Currently this intermittent flow is supplemented from water released from Terminus Dam (Lake Kaweah), which was constructed in 1962 and is operated by the USACE. This supplemental water is used for surface water delivery to water rights holders on the Kaweah and St. John's River systems.

The Kaweah and St. John's Rivers Association (KSJRA) was formed in March 1974 by a group of water companies, irrigation districts, conservation districts, corporations, and individuals that had established water rights on the Kaweah and St. John's Rivers prior to the construction of the Terminus Dam.

[48] City of Visalia, 2014. General Plan Update DEIR – Chapter 3.6: Hydrology, Flooding, and Water Quality. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30496 Date Accessed: 7/12/2016
[49] Technicon. Geotechnical Investigation Report. Page 6. Prepared 9/29/15, Revised 3/10/16.

There are a number of irrigation entities, mostly privately held water companies, that own pre-1914 appropriative and riparian rights to the Kaweah River and that divert this water to beneficial use along the Kaweah and St. John's Rivers. Again, some of the water for these entities passes through portions of the lower Kaweah River distributaries which travel through or close to the Project.

The Persian Ditch Company, the Watson Ditch Company, and the Evans Ditch Company, all members of the KSJRA, receive irrigation water through Mill Creek and take delivery of these waters downstream of the Project. Records of flow through Mill Creek through the years of 1981-2012 show that there are significant amounts of time when Mill Creek has not historically flowed,[50] and that the normal condition for Mill Creek is to have more than 200 days per year when there is no irrigation flow.

The Oakes Ditch Company receives irrigation waters through the Oakes Ditch. This ditch terminates near the western boundary corner of the Project site and then travels south through an underground pipeline to a tailwater/recharge basin located in the southwest corner of the site. The recorded irrigation flow volumes delivered and days of flow through Oakes Ditch through the years of 1981- 2012 show that there are significant amounts of time when Oakes Ditch has not historically flowed[51] and that on the average, Oakes Ditch has more than 225 days per year when there is no irrigation flow.

TID receives irrigation water via Packwood Creek and takes delivery of these waters downstream of the Project. In more recent times, agreements between the City and TID have required TID to use Packwood Creek for the delivery of water to its growers for which the City purchases the seepage loss along Packwood Creek as recharge water to benefit the City's groundwater. The recorded irrigation flow volumes delivered and days of flow through Packwood Creek through the years of 1981-2012 show that there are significant amounts of time when Packwood Creek has not historically flowed and that the channel had no irrigation flow an average of 225 days per year over the period of 1981 through 2012.[52]

The canal companies on the Kaweah system generally call for early season water (February to March) in response to calls for flood release and then are forced to wait until their entitlement accrues behind Terminus Dam before its released during the hottest months of the summer (June to August). Little water is typically run in the fall months.

Conveyance in Local Streams and Ditches

The Kaweah Delta Water Conservation District (KDWCD) operates and maintains the local waterways not under specific control of another local water agency or ditch company in the area. Water deliveries from either the Friant-Kern Canal or the Kaweah River system must be coordinated through KDWCD. Deliveries from the Friant-Kern Canal would most likely be released into the Kaweah River channel via the Kaweah River Waterway Turnout on the Friant-Kern Canal. From there it would be diverted into Mill Creek or Oakes Ditch for delivery to the Project site. Similarly, water originating from Kaweah Lake releases would be diverted into the Lower Kaweah River at McKay's Point and subsequently diverted into Mill Creek or Oakes Ditch for delivery to the Project site. Deliveries made to the Project property via Oakes Ditch would also need to be coordinated through the Oakes Ditch Company.

Storm Water Layoff

Visalia experienced major floods in 1950, 1955, 1966, and 1969. The waterways described in the surface water section above have historically been used for flood control, storm water conveyance, riparian, and recreational uses. In addition, the City maintains parks with detention ponds that serve to detain localized storm water runoff from nearby or adjacent developed lands when significant storm events occur.

[50] Kaweah Delta Water Conservation District. 2015
[51] Ibid.
[52] Ibid.

The City currently maintains storm water conveyance and diversion/layoff agreements with various ditch companies whose channels traverse the City. These agreements provide for the transportation of storm water out of the City for safe use or disposal. The agreements also allow for the temporary diversion of water rights entitlement water from the ditches into detention basins while storm water is being managed downstream. The City then returns this water to the channels and water rights holders once high storm flows have subsided.

Similar agreements and in some cases amendments to existing agreements would be needed in order to allow for the diversion and temporary holding of water rights entitlement water as storm water from Oakes Ditch and Mill Creek into the Project basins and then return of that water to the respective channels once it is safe once high storm flows have subsided.

Water Quality

Groundwater Quality

Water quality of the groundwater that underlies the Project Site is excellent for domestic and agricultural uses. This is most likely due to the abundant snowmelt that originates in the Sierra Nevada. The primary constituents of concern are high total dissolved solids, nitrate, arsenic, and organic compounds resulting from both naturally occurring geologic processes and from man-made activities. Water quality typically deteriorates west of SR 99.[53]

Surface Water Quality

The surface water quality of the Kaweah River alluvial fan distributary waterway system is considered to be excellent and typical of Sierra Nevada snowmelt runoff.[54] There are no known water quality impairments in the area according to the CWA Section 303(d) List of Impaired Waters.[55] The City is proactively involved in protecting water quality. In November 2005, the City adopted a Storm Water Management Program that includes a detailed analysis to handle storm water runoff from increased amounts of impervious surfaces. Plans include retention/detention facilities, street sweeping, establishment of a water quality hotline, and an Illicit Discharge Detection and Elimination System which would allow the City to determine if there is a serious water quality problem from illegal discharges.

3.9.2 Regulatory Setting

Federal

Federal Clean Water Act

Refer to **Section 3.4.3 Regulatory Setting**.

Section 401 – Water Quality Certification

CWA Section 401 requires that an applicant pursuing a federal permit to conduct any activity that may result in a discharge of a pollutant obtain a water quality certification (or waiver). Water quality certifications are issued by RWQCBs in California. Under CWA, the State (as implemented by the relevant board) must issue or waive CWA 401 water quality certification for the Project to be permitted under CWA 404. Water quality certification requires the evaluation of water quality considerations associated with dredging or the placement of fill materials into waters of the United States. Construction of individual projects within the City would require CWA 401 certification for the Project if CWA 404 were triggered.

[53] Groundwater Quality Assessment Report. 2015. https://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/water_quality/coalitions_submittals/kaweah/ground_water/2015_0204_kaweah_gar.pdf
[54] City of Visalia General Plan. 2014. Open Space and Conservation Element.
[55] United State Environmental Protection Agency. Clean Water Act Section 303(d). https://www.epa.gov/tmdl

National Pollutant Discharge Elimination System Waste Discharge Regulations

The 1972 amendments to the Federal Water Pollution Control Act established the NPDES permit program to control discharges of pollutants from point sources (CWA 402), as discussed in **Section 3.4**. The 1987 amendments to CWA created a new section of CWA devoted to stormwater permitting (CWA 402[p]). The EPA has granted California primacy in administering and enforcing the provisions of CWA and the NPDES permit program, which is the primary federal program that regulates point-source and nonpoint-source discharges to WOTUS. SWRCB issues both general and individual permits for certain activities. Relevant general and individual NPDES permits are discussed below.

Phase II MS4 Permit

The SWRCB, in response to the EPA, issued Water Quality Order No. 2013-001-DWQ NPDES General Permit No. CAS000004, Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Systems (MS4s) in February 2013 which went into effect July 2013. The MS4 Permit requires urban municipalities with predetermined inclusion reequipments to file an application and comply with prescriptive tasks over the 5-year permit term. The prescriptive tasks include, but are not limited to, public outreach and involvement, illicit discharge detection and elimination (IDDE), construction site runoff control, post-construction storm water management, municipality facility and operation good housekeeping, water quality monitoring, and municipality assessment and reporting.

Construction Stormwater NPDES Permit

A Construction NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit (CGP), Water Quality Order No. 2009-0009-DWQ) is required for dischargers or projects who disturb one acre or more of soil or whose project disturbs less than one acre, but which is part of a larger common plan of development that in total disturbs one acre or more. This CGP was adopted in September 2009 and went into effect July 2010.

The CGP requires the development of Permit Registration Documents (PRDs) which include the development and implementation of a SWPPP. The SWPPP must contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list/describe BMPs the discharger would use to prevent polluted stormwater runoff and show the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for "non-visible" pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Attachment B of the CGP describes the elements that must be contained in a SWPPP. Additional PRD requirements are described in Attachments C-E in the CGP.

General Dewatering Permit

Small amounts of construction-related dewatering are covered under the CGP. Large amounts of dewatering, particularly over lengthy periods of time would be required to comply with the General Dewatering Permit. Project-related dewatering is likely to be limited in nature and scope and would likely be covered under the CGP. However, some projects may result in larger amounts of dewatering than covered under the CGP and a Low Threat Discharge and Dewatering Permit would need to be obtained from the Central Valley RWQCB.

Section 404

CWA Section 404 regulates the discharge of dredged and fill materials into WOTUS, which include oceans, bays, rivers, streams, lakes, ponds, and wetlands. Project proponents must obtain a permit from the USACE for all discharges of dredged or fill material into WOTUS, including wetlands, before proceeding with a proposed activity. Before any actions that may impact surface waters are carried out, a delineation of jurisdictional waters must be completed following USACE protocols (Environmental Laboratory 1987) to

determine whether a particular project area encompasses wetlands or other waters that qualify for CWA protection. These include any or all of the following:

- Areas within the ordinary high-water mark of a stream, including nonperennial streams with a defined bed and bank, and any stream channel that conveys natural runoff, even if it has been realigned; or
- Seasonal and perennial wetlands, including coastal wetlands.

Wetlands are defined for regulatory purposes as areas "inundated or saturated by surface or ground water 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" (33 CFR 328.3; 40 CFR 230.3).

Under the CWA 404 permit program, general permits (known as nationwide permits) have been adopted, and coverage under nationwide permits is possible when the amount of fill is relatively small (usually less than 0.5 acre). Individual projects within the City that do not qualify for a nationwide permit must obtain an individual permit.

National Flood Insurance Program

Congress passed the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The intent of these acts was to reduce the need for large, publicly funded flood control structures and disaster relief by restricting development on floodplains.

FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA issues Flood Insurance Rate Maps (FIRM) for communities participating in the NFIP.

Executive Order 11988

Executive Order 11988 (Floodplain Management) addresses floodplain issues related to public safety, conservation, and economics. It generally requires federal agencies constructing, permitting, or funding to 1) avoid incompatible floodplain development; 2) be consistent with the standards and criteria of the NFIP; and 3) restore and preserve natural and beneficial floodplain values.

State

Porter-Cologne Water Quality Control Act of 1969

Refer to **Section 3.4.3 Regulatory Setting**.

California Regional Water Quality Control Board, Central Valley Region – Basin Plan

Water quality in streams and aquifers of the region is guided and regulated by the Central Valley RWQCB Tulare Lake Basin Plan.[56] State policy for water quality control is directed at achieving the highest water quality consistent with the maximum benefit to the people of the state. To develop water quality standards consistent with the uses of a water body, the Central Valley RWQCB classifies historical, present, and potential future beneficial uses as part of its basin plan. The Central Valley RWQCB Basin Plan identifies the beneficial uses of the Tulare Lake basin.

Although the St. John's River is not specifically listed on the Tulare Lake Basin Plan, the Valley Floor Creeks are listed for agriculture, industrial, process water, recreation, warm water habitat, wild habitat, rare species habitat, and groundwater recharge. A detailed discussion of beneficial uses and water quality objectives can be found in the Basin Plan.

[56] California Water Boards, Central Valley. https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

The Central Valley RWQCB Basin Plan has also established the water quality objectives for dissolved oxygen in various habitats. The objective for warm water beneficial use habitats is 5mg/L minimum; and for cold water habitats is 7mg/L minimum.[57]

The Central Valley RWQCB Basin Plan also states that turbidity shall not be increased by more than 1 Nephelometric Turbidity Unit (NTU) when ambient turbidity is between 0 and 5 NTU. Turbidity shall not be increased by more than 20 percent when ambient turbidity is between 5 and 50 NTU. Finally, when ambient turbidity is greater than 100 NTU, turbidity shall not be increased by more than 10 percent.[58]

Sustainable Groundwater Management Act

In September 2014, the California Legislature enacted a three-bill law (AB 1739, SB 1168, and SB 1319), known as the Sustainable Groundwater Management Act (SGMA). SGMA was created to provide a framework for the sustainable management of groundwater supplies and intended to empower local agencies to adopt groundwater management plans that are tailored to the resources and needs of their communities, such that sustainable management would provide a buffer against drought and climate change, and ensure reliable water supplies regardless of weather patterns. SGMA is considered part of the statewide, comprehensive California Water Action Plan that includes water conservation, water recycling, expanded water storage, safe drinking water, and wetlands and watershed restoration. It protects existing surface water and groundwater rights and does not affect current drought response measures.[59]

SGMA requires that local agencies form a local groundwater sustainability agency within 2 years (i.e., by 2017). This process is not subject to LAFCo oversight. Agencies located within high- or medium-priority basins must adopt groundwater sustainability plans within 5 to 7 years. The time frame for basins determined by DWR to be in a condition of "critical overdraft" is 5 years (i.e., by 2020). Local agencies would have 20 years to fully implement groundwater sustainability plans after the plans have been adopted. Intervention by the SWRCB would occur if a groundwater sustainability agency is not formed by the local agencies, and/or if a groundwater sustainability plan is not adopted or implemented.[60]

Streambed Alteration Agreement

The CDFW regulates streambed alterations in accordance with Fish and Game Code Sections 1601–1616: Lake or Streambed Alteration Agreements. Whenever a project proposes to alter a streambed, channel, or bank, an agreement with CDFW is required. The agreement is a legally binding document that describes measures agreed to by both parties to reduce risks to fish and wildlife in the stream system during the project. This is a process outside of CEQA but is usually coordinated with CEQA compliance. Agreements typically have fewer procedural and legal requirements than CEQA in order to work with small-scale projects that are important to fish. Timeframes for agreements are 30 days for CDFW to determine the completeness of an application and an additional 60 days to provide a draft agreement to the applicant.

Local

Phase II MS4 Permit

The Municipal Storm Water Permitting Program established under NPDES regulates storm water discharges from MS4s. In the first phase, the SWRCB issued permits to medium and large municipalities, typically grouped as co-permittees in a metropolitan region. In the second phase, the SWRCB adopted a General Permit for the

[57] California Regional Water Quality Control Board, Central Valley Region. Water Quality Control Plan for the Tulare Lake Basin. Second Edition. Revised January 2004.
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/tlbp_200401.pdf
[58] Ibid.
[59] California Department of Water Resources. https://water.ca.gov/sgma
[60] Ibid.

Discharge of Storm Water from Small MS4s. In 2013, SWRCB, in response to the EPA, issued Water Quality Order No. 2013-001-DWQ NPDES General Permit No. CAS000004, Waste Discharge Requirements for Storm Water Discharges from Small MS4s in February 2013, which went into effect July 2013. The MS4 Permit requires urban municipalities with predetermined inclusion reequipments to file an application and comply with prescriptive tasks over the 5-year permit term. The prescriptive tasks include, but are not limited to, public outreach and involvement, IDDE, construction site runoff control, post-construction storm water management, municipality facility and operation good housekeeping, water quality monitoring, and municipality assessment and reporting.

The City applied with the SWRCB under the Phase II MS4 Permit in July 2013, covering the City itself, and the Storm Water Management Program for Tulare County, which covers all unincorporated parts of the County, including the Project site. The City, under previous permit issuances, developed and adopted Stormwater Management Plans in 2005 and 2008, respectively.

Visalia Urban Water Management Plan

California Water Service Company[61] Visalia District 2015 UWMP evaluates water demand and potential supply based on projected population and urban area growth. Water Code Section 10644(a) requires urban water suppliers to file UWMPs with the DWR, the California State Library, and any city or county within which the supplier provides water supplies. The UWMP describes the water system, system demands, system supplies, water supply reliability and water shortage contingency planning, and demand management measures.

City of Visalia General Plan

- Objective OSC-O-6: Protect water resources vital to the health of the community residents and important to the Planning Area's ecological and economic stability.

- Objective OSC-O-7: Preserve and enhance Planning Area waterways and adjacent corridors as valuable community resources which serve as plant and wildlife habitats, as groundwater recharge facilities, as flood control and irrigation components, and as connections between open space areas.

- Objective OSC-O-8: Continue to participate in a waterway program involving the Tulare Irrigation District, irrigation companies, private water companies and state agencies.

- Policy OSC-P-18: Establish a liability agreement between the City, Tulare Irrigation District, water conservation districts and ditch companies related to public access and trail use and riparian corridor enhancement programs.

City of Visalia Municipal Code: Chapter 15.60, Flood Plain Management Ordinance

VMC Chapter 15.60, the Flood Plain Management Ordinance, is intended to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- Protect human life and health;
- Minimize expenditure of public money for costly flood control projects;
- Minimize the need for rescue and relief efforts associated with flooding events and generally undertaken at the expense of the general public;
- Minimize prolonged business interruptions;

[61] California Water Service Company is an investor-owned corporate purveyor of water to the City of Visalia.

- Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; and streets and bridges located in special flood hazard areas;
- Help maintain a stable tax base by providing for the sound use and development of special flood hazard areas so as to minimize future blighted areas caused by flood damage;
- Ensure that potential buyers are notified that property is located in a special flood hazard area; and
- Ensure that those who occupy properties located in special flood hazard areas assume responsibility for their actions.

Methods to reduce flood losses through this chapter involve regulations pertaining to the following:

- Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards;
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- Control the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel floodwaters;
- Control filling, grading, dredging, and other development which may increase flood damage; and
- Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

3.9.3 Impact Assessment

a) Would the project violate any water quality standards or waste discharge requirements?

Less than Significant Impact. Implementation of the Project could result in violations of water quality standards or waste discharge requirements as a result of proposed changes in existing drainage patterns, both in the short-term due to erosion and sedimentation during construction activities and in the long term based upon necessary recontouring of the site to establish recharge basins, external and internal roadways and parking areas and other sports fields and activity areas. Construction activities undertaken to implement subsequent development projects associated with build-out of the Project could include excavation, soil stockpiling, boring, and/or grading activities that strip existing vegetation. Soil erosion is probable during construction which may result in water quality impairments if it is not sufficiently retained from reaching receiving waters. Water quality impairments may include turbidity, increased algal growth, oxygen depletion, or sediment buildup, thereby degrading aquatic habitats. Sediment from Project-induced erosion could also ultimately accumulate in downstream drainage facilities and interfere with stream flow, thereby aggravating downstream flooding conditions.

Since the Project site would exceed the one-acre disturbance area threshold, RWQCB would require a SWPPP. The SWPPP would include the BMPs such as those listed below, as necessary and appropriate:

- Limiting excavation and grading activities to the dry season only (April 15 to October 15), to the extent possible. This would reduce the chance of severe erosion from intense rainfall and surface runoff, as well as the potential for soil saturation in swale areas.
- If excavation does occur during the rainy season, storm-water runoff from the construction area can be regulated through a storm-water management/erosion control plan that may include temporary on-site silt traps and/or basins with multiple discharge points to natural drainages and energy dissipaters. Stockpiles of loose material are generally covered, and runoff diverted away from exposed soil material. Sediment basin/traps would be located and operated to minimize the amount of off-site sediment transport. Any trapped sediment would be removed from the basin or trap and placed at a suitable location on-site, away from concentrated flows, or removed to an approved disposal site.
- Temporary erosion control measures would be provided until perennial re-vegetation or landscaping is established that can minimize discharge of sediment into receiving waterways.

- After completion of grading, erosion protection would be provided on all exposed soils either by re-vegetation or placement of impervious surfaces. Re-vegetation would be facilitated by mulching, hydro-seeding, or other methods and initiated as soon as possible after completion of grading and prior to the onset of the rainy season (by October 15).
- Permanent re-vegetation/landscaping shall emphasize drought-tolerant perennial ground coverings, shrubs, and trees.
- BMPs selected and implemented for the project shall be in place and operational prior to the onset of major earthwork on the site. The construction phase facilities shall be maintained regularly and cleared of accumulated sediment, as necessary.
- Hazardous materials such as fuels and solvents used on the construction sites shall be stored in covered containers and protected from rainfall, runoff, and vandalism. A stockpile of spill cleanup materials shall be readily available at all construction sites. Employees shall be trained in spill prevention and cleanup, and individuals should be designated as responsible for prevention and cleanup activities. Incorporation of these or equivalent practices in accordance with the requirements of the SWRCBs General Construction Permit process would reduce this potentially significant impact on water resources during construction to a less-than-significant level.

  In addition, the project includes facilities and features designed to capture and retain all run-off that would be generated by site development on-site for infiltration or controlled release to the City's storm drain collection system. As such, the impact would be less than significant.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than Significant Impact. The City plans to construct a groundwater recharge/storm water layoff basin complex with associated control structures. The intent of the Project is to recharge water that is available from any of the three surface water conveyances that traverse the Project site (Mill Creek, Oakes Ditch, and Packwood Creek) when water is available. When available, agreements between the City and TID would allow for the Project to take an average of approximately 5,500 acre-feet per year.

Based on the geotechnical investigation prepared by Technicon, infiltration rates based on a double ring infiltration test show a range between 5 and 129 gallons (gal)/square-feet (sf)/day. With the 129 gal/sf/day outlier removed, the average is more in the range of 21 gal/sf/day. This rate would vary depending on location and is expected to slow down with time after the basins have had time to fill. Given that the Project would contribute to improving groundwater supplies and lead to a net increase in aquifer volume, there would be no negative effects and impacts would be less than significant.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Less than Significant Impact. Mill Creek is planned to be re-aligned to accommodate park amenities while maintaining the creeks current capacity. The channel boundaries, bed surface, irregularities, obstructions, vegetation and channel meandering are to be considered in hydraulic computations to allow the creek to convey the current capacity without restriction. The restoration of Mill Creek to more closely resemble the riparian corridor that existed in the 1937 photo, shown in **Figure 2-4**. This substantial alteration could result in erosion or siltation on- or off-site however, as described in Section 3.4.4, the Project would obtain and comply with any necessary permits and conditions to reduce impacts to less than significant.

The Mill Creek channel restoration design aims at reconstructing the creek channel to a stable geometric configuration that is self-sustaining and in balance with imposed flow and sediment regimes and the character of the catchment landscape. This design would prioritize the minimization of erosion or siltation on or off-site. Any impacts would be less than significant.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less than Significant Impact. As part of the Project, an evaluation of the floodway status of all the channels must be made. If the channels are not designated floodways on the local FIRM, no FEMA applications would be required. If, however, any of them are designated as floodways by FEMA (not as 100-year Special Flood Hazard Areas) then the City would be required to work with FEMA to authorize changes in the floodway. This would take the form of a flood study demonstrating that the proposed changes would not result in an increase in flood surface elevations alongside of, upstream of or downstream of the project. The City would then apply for a Conditional Letter of Map Revision (CLOMR) from FEMA. Once that is approved, the work can be done. At that point, as-built plans would be submitted to FEMA demonstrating that the work conforms to the approved CLOMR and a Letter of Map Revision would be issued.

As part of the Project, Mill Creek would be realigned, returning it to a more natural meandering channel alignment and riparian character that more closely resembles how it existed in 1937 (**Figure 2-4**). This realignment would not change the creeks flow or capacity. The site storm water runoff would be accommodated by strategically located drainage facilities that would direct storm water runoff from the Project site into the basins. The storm water runoff basins are located along the west side adjacent to Tower Street and along the east side adjacent to Road 152.

The Project would utilize the three existing waterways flowing through the property (Mill Creek, Packwood Creek, and Oakes Ditch) for the groundwater recharge and storm water layoff functions. It is anticipated that water would be available for groundwater recharge year-round during a wet year, and from December through July for an average precipitation year. The dual-function design would therefore include new control structures to divert recharge and layoff waters from these waterways into the basins, move water between basins, and return water to Mill or Packwood Creek as needed. During the storm season, the Project would have the ability to take water from Mill Creek, Oakes Ditch, and Packwood Creek. The current design layout allows for flexible on-site water management between eight basins so that water can be moved around the site from any one system or all. With two feet of freeboard on the basin tops, the Project could provide approximately 300 acre-feet of layoff during a storm event and possibly more if the basins infiltrate.

Each basin would include a low-flow channel that allows for small volumes of water to be conveyed through the basins without filling up the entire basin and also allows more flexibility in moving water via gravity from the ditches or creeks. In an effort to minimize depth and maintain bi-directional flow, the channels are only one-to-two feet in depth and approximately 20 feet wide.

Therefore, while the Project would alter the course of a stream, it would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off of the Project site. Any impacts would be less than significant.

e) Would the project 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? And

f) Otherwise substantially degrades water quality?

Less than Significant Impacts. Water quality in storm water runoff is regulated locally by the Central Valley RWQCB and the MS4 requirements set by the SWRCB. Adherence to these requirements results in

incorporating treatment measures and other appropriate source control and site design features that reduce pollutants in runoff to the maximum extent practical. Many of these requirements result in the construction of Low Impact Development techniques such as use of on-site infiltration through landscaping or vegetated swales that reduce pollutant loading in off-site discharges. Incorporation of these types of source control design measures can even potentially improve upon existing conditions.

Analysis of future Tower Street has been limited to south of the future Mineral King/Tower Street intersection, approximately 1,300 feet north of the centerline intersection of SR 198 and Tower Street. At Race Avenue, preliminary plans show water from the west half of Tower Street would be routed into the subdivision to the west. In all other cases, Tower Street runoff is captured and routed to depressed basins at McKinley Avenue or to on-site underground and depressed storage facilities. On-site, the park site was divided into three areas to determine capacity needs. The park area south of Mill Creek is one separate drainage area and the area north of Mill Creek is divided into to two drainage areas generally split on a north south line through the softball complex that reaches the center northernmost baseball complex then turns east to the west edge of Basins A, B, and C. Due to the proposed top of bank elevations for the recharge basins and the low flow line elevations of drop inlets it is not practical to gravity flow storm water runoff into the basins. A pump system would be designed to take water generated from the site and from Tower Street that would be deposited into one or more of the proposed recharge basins.

Capacity of the Dog Park Basin and the McKinley Avenue Basins are based on the City's Storm Water Master Plan (SWMP) retention design with gentle side slopes (generally 6:1 (horizontal distance to vertical distance)) and one foot of freeboard. The basin capacities can be increased by deepening the basins. Criteria for preliminary sizing of the basins are based on the City's SWMP using Table 3-6, Rational Method Runoff Coefficients and Design Criteria for Storm-water Basins. A Storage Volume value of 0.191 for Residential – High Density Land Use was selected based on the combination of open space and developed space including roads and parking lots shown on the Park Master Plan layout.

Capacity of the underground basins are calculated from Storm-Tech MC-3500 Chambers and based on a nine-inch stone foundation depth. Each of the proposed parking lots would contain a system of underground chambers to allow for efficient routing of storm lines. If needed, it is possible to locate the chambers under designed play areas if the parking lots do not develop as proposed on the Park Master Plan.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? And,

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Less than Significant Impact. Portions of the Project area fall within FEMA Flood Zones AE and X (Panel 06107C0954; see **Figure 3-16**). For Zone AE, elevations have been established that would need to be respected when designing buildings, support structures, and critical equipment. The Project would apply for a Development Permit from the City in compliance with Municipal Code Sections 15.60.040 and 15.60.050.A.3.b. In general, the site elevations within Zone AE range from a low of 352 feet amsl on the west side to a high of 355 feet amsl on the east side. Additionally, the Park Master Plan areas that are not intended for recreation facilities/uses are primarily located along Tower Street and are scheduled to be raised mounds. No housing is proposed as a part of this Project and no structures, including the proposed sound wall included in Mitigation Measure NOI-2, would impede or redirect flood flows. Any impacts would be less than significant.

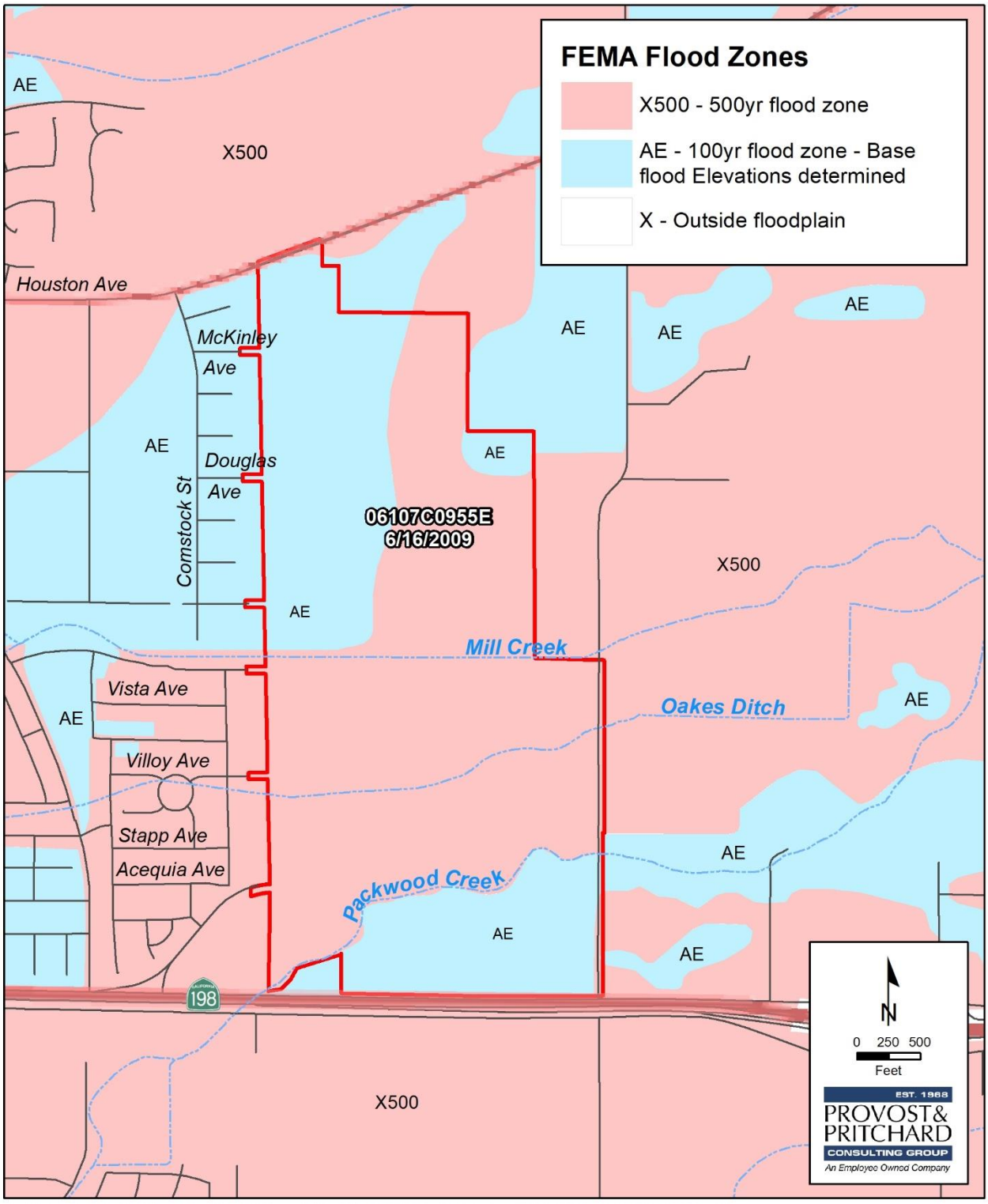


Figure 3-16. FEMA Flood Zones

i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact. Lake Kaweah is located upstream of the Project area and was formed upon the construction of Terminus Dam in 1962. In 2004, the USACE undertook a project to raise the lake 21 feet. The project included the construction of six 21-foot fuse-gates in the Terminus Spillway. The likelihood of failure of Terminus Dam, according to the 2017 MJLHMP, is less than 1% in next 100 years. However, if a significant seismic event were to occur that was at a magnitude the dam could not sustain, the existing urbanized area of Visalia and most of the Project site would be inundated. The dam inundation area covers the entirety of the City. This would expose people and structures to flooding risk damages could be catastrophic, including substantial loss of property and life.

This impact was considered significant and unavoidable by the City's GP Update EIR. A SOC was adopted, stating that because the Terminus Dam is owned and operated by the USACE, there are no feasible mitigation measures that the City could adopt that could reduce potential impacts. Since adoption of the GP Update, the MJLHMP identifies the following specific and potential mitigation actions:

1. Acquire land upstream and develop storm water layoff basins for Packwood Creek, Mill Creek, and Evans Ditch to reduce flooding from the 1% annual chance flood.
2. Designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.

In the context of the Project, the significant and unavoidable risk identified in the GP Update EIR can be considered a baseline condition. The risks of dam failure as a result of a seismic event are preexisting and would not be increased in any way due to Project implementation. Conversely, the basins proposed by the Project would serve to minimally reduce risk of flooding due to dam failure, as they could capture a portion of the flood flows. Given this slight beneficial impact, and that flood risk due to dam failure is a baseline environmental condition, impacts would be less than significant.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. The Project area is located sufficiently inland to be out of what would be considered a potential hazard area for seiches, tsunamis, and sea level rise. In addition, the location of the park area makes the potential for mudflows remote. Therefore, there would be no impact related to these hazards.

3.9.4 Cumulative Impacts

Less than Significant Impact. Concurrent construction of the Project with other planned projects in the vicinity could result in temporary impacts to hydrology and water quality in the Project area. The concurrent construction activities could result in increased runoff, erosion, and subsequent sedimentation with impacts to water quality in downstream water bodies and/or storm drain capacity. Additionally, surface water quality could be affected by concurrent construction activities that result in the release of fuels or other hazardous materials to stream channels or storm drains, or discharge from excavation dewatering activities.

Adherence to the requirements of the City development regulations and RWQCB CGP requirements would reduce the above-mentioned concurrent project-related construction impacts to hydrology and water quality to a less than significant level. Each of the related projects would be evaluated to determine the degree to which these developments would increase or decrease runoff from the sites and the need for additional storm drain capacity. As such, the contribution of the Project to hydrology and water quality impacts would not be cumulatively considerable, and the Project would not contribute to a cumulative impact to water quality and flooding.

3.10 Land Use and Planning

Table 3-23. Land Use and Planning

Land Use and Planning					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

3.10.1 Environmental Setting

The Project is located partially within the City and partially within unincorporated County. The City is located in northwestern portion of the County, north of the City of Tulare and west of the City of Farmersville, in California's Central Valley. The City of Hanford, in Kings County, lies 12 miles to the west. Most of the land uses surrounding the City are agricultural in nature. In 2010, the population of Visalia was 124,440, making it the largest city in County. According to the California Department of Finance, the City has an estimated population of 130,231 in 2016.[62] The City covers an area of approximately 36 square miles.[63]

The Project comprises approximately 286 acres. The southern portion of the site, from SR 198 to Mill Creek, is located within the City limits. This portion is zoned QP by the Visalia Zoning Ordinance and designated Parks/Recreation and Conservation by the Visalia GP. The northernmost portion, north of Mill Creek and extending from the Cecil Court alignment to Houston Avenue, is located within unincorporated Tulare County. The City's GP designates this area for Parks and Recreation and Low, Medium, and High Density Residential uses, while the County's GP indicates it as Agriculture. The current County zoning of the northernmost area is AE-20 (Agricultural zone).

The majorIty of the site is currently occupied by pecan orchards for the southern portion within the City and by walnut orchards for the northern portion within the County.

3.10.2 Regulatory Setting

Federal

There are no federal land use regulations that apply to the Project.

[62] State of California Department of Finance, 2016. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2016 with 2010 Census Benchmark. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/documents/E-5_2016_InternetVersion.xls Date Accessed: 7/28/2016.

[63] City of Visalia, 2014. General Plan DEIR – Chapter 3.1: Land Use and Planning. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30491 Date Accessed: 7/6/2016

State

There are no State land use regulations that apply to the Project.

Local

City of Visalia General Plan

- Objective LU-O-7: Preserve and enhance qualities that make Visalia an ideal place to do business and promote a positive image of Visalia as a desirable place to live, visit, and do business.
- Policy LU-P-20: Allow annexation and development of residential, commercial, and industrial land to occur within the "Tier I" Urban Development Boundary at any time, consistent with the City's Land Use Diagram.
- Policy LU-P-29: Use regional and community parks and open space to enhance gateways to the City and as a buffer between adjacent communities.
- Policy LU-P-37: Adopt specific development standards for scenic entryways (gateways) and roadway corridors into the City, including special setback and landscape standards, open space and park development, and/or land use designations.
- Objective OSC-O-7: Preserve and enhance Planning Area waterways and adjacent corridors as valuable community resources which serve as plant and wildlife habitats, as groundwater recharge facilities, as flood control and irrigation components, and as connections between open spaces.
- Policy OSC-P-8: Protect, restore, and enhance a continuous corridor of native riparian vegetation along Planning Area waterways, including the St. John's River; Mill, Packwood, and Cameron Creeks; and segments of other creeks and ditches where feasible, in conformance with the Parks and Open Space diagram of this General Plan.

  Waterway corridors provide irrigation water for agriculture, recreational opportunities, habitat, and storm drainage. They will provide new links between neighborhoods, parks, and Downtown, and provide a new way of experiencing the City and understanding its natural setting.
- Policy OSC-P-10: Ensure that building and vehicle service areas, loading docks, trash enclosures and storage areas are setback from waterways and/or screened from view from the creek corridor to minimize environmental and visual impacts.
- Policy OSC-P-14: Establish design and development standards for new development in waterway corridors to preserve and enhance irrigation capabilities, if provided, and the natural riparian environment along these corridors. In certain locations or where conditions require it, alternative designs such as terraced seating or a planted wall system may be appropriate.

  As part of Plan implementation, examples of waterway bank treatments should be developed to facilitate adoption of these standards.
- Policy OSC-P-17: Require that new development along waterways maintain a visual orientation and active interface with waterways. Develop design guidelines to be used for review and approval of subdivision and development proposals to illustrate how this can be accomplished for different land uses in various geographic settings.
- Policy OSC-P-23: Where no urban development exists, maintain a minimum riparian habitat development setback from the discernible top of the bank – 50 feet for both sides of the Mill, Packwood and Cameron Creek corridors and 25 feet for both sides of Modoc, Persian and Mill Creek Ditches – provided that where riparian trees are located within 100 feet of the discernible top of the

banks of the Creek corridors and 50 from the banks of the ditches, the setback shall be wide enough to include five feet outside the drip line of such trees. Restore and enhance the area within the setback with native vegetation.

- Where existing development or land committed to development prohibits the 50 foot setback on Mill, Packwood and Cameron Creek corridors, provide the maximum amount of land available for a development setback
- Where existing development or land committed to development prohibits the 25 foot setback along Modoc, Persian, and Mill Creek Ditches, provide the maximum amount of land available for a development setback.

  An exception to these setback requirements also may be allowed to permit piping of the ditch where necessary to meet City standards, and where no riparian trees will be lost.

City of Visalia Municipal Code

The City proposes to pre-zone the portion of the site that is within unincorporated Tulare County to the QP zone; that zoning would take effect upon completion of the annexation. The purpose and intent of this zone is to allow for the location of institutional, academic, community service, governmental, and nonprofit uses. According to VMC section 17.52.020, "Permitted uses in this zone include public uses of an administrative, recreational, public service or cultural type including city, county, state or federal administrative centers and courts, libraries, museums, art galleries, police and fire stations and other public building, structures and facilities; public playgrounds, parks and community centers."[64]

Waterways and Trails Master Plan

The Waterways and Trails Master Plan, outlines goals, policies, design standards, and implementation strategies for the development of a multi-purpose trail system along Visalia's primary community waterways. The trail systems would link neighborhoods, parks, schools, Downtown, and other activity centers. The plan focuses on developing trails along three waterways: Packwood Creek, Mill Creek, and Cameron Creek. The Master Plan also identifies that the Class I trail that would run along Mill Creek and connect to the proposed Class I trail running north/south along the power line easement, west of the Project site.[65] These trails are designed to link with the City's existing trail system along the St. Johns River and the bike network. Mill Creek is proposed to be fully daylighted through Downtown. Ultimately, the completed system would form a "ring recreational trail" around the City's periphery, several cross-town routes along waterways and other primary corridors, and a major north/south route along Santa Fe Avenue. Along each waterway, a preferred trail alignment is identified, and recommendations and policies are made for landscaping improvements and habitat restoration within the waterway setback.[66]

3.10.3 **Impact Assessment**

a) Impact Assessment Would the project physically divide an established community?

No Impact. The Project is located on the far eastern edge of the City, at the outer boundary of existing development and therefore would not divide the community. There would be no impact.

[64] City of Visalia Zoning Ordinance, 15.52.020. http://library.amlegal.com/nxt/gateway.dll/California/visalia_ca/cityofvisaliacaliforniamunicipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:visalia_ca Date Accessed: 7/14/2016

[65] City of Visalia, February 2010. Waterways and Trails Master Plan. https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=31825 Date Accessed: 7/30/2018

[66] City of Visalia, 2014. General Plan DEIR – Chapter 3.9: Public Services, Facilities, and Utilities. http://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30499 Date Accessed: 7/6/2016

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. Prior to pursuing the development of the Project, several steps would need to be taken. Since a portion of the Project site is located within Tulare County, the City must request annexation. As part of the annexation, the City would need to perfect a General Plan Amendment for approximately 42 acres of the annexation area currently designated for Low, Medium, and High Density Residential located in the northern third of the Project site. The change in land use would affect approximately 0.4 percent of land within the City's Sphere of Influence planned for Residential uses. These lands would be designated for Parks/Recreation consistent with the land use designation for the portion of the Project site already within the City limits and lying south of Mill Creek.

At this time, the City would need to obtain approval from LAFCo for annexation of the approximately 129 acres lying north of Mill Creek to Houston Avenue. Approval and recordation of the annexation would bring the property into the City limits. The new QP zone would take effect upon LAFCo's filing of a Certificate of Completion.

The majority of the southern two-thirds of the Project Site is located within Tier I of the City's Urban Development Boundary, while the remainder (which is currently planned for residential use) is within Tier III, the Urban Growth Boundary. The GP contains criteria to determine whether land within Tier III can be developed, however it applies only to residential, commercial, and industrial development. Therefore, once these lands are annexed into the City and designated as QP zone, the tier distinctions would no longer apply for the development of the Project. Therefore, the impact would be less than significant.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. There are no habitat conservation plans or natural community plans in the vicinity of the Project site. There would be no impact.

3.10.4 Cumulative Impacts

Less than Significant Impact. The City's GP designates future land uses for the build out of vacant land within the city limits and sphere of influence. The City proposes to amend its GP, rezone the site, and annex the land into the City. The Project would be consistent with the GP and zoning of the site as amended. Additionally, the City has sufficient capacity to meet the Regional Housing Need Allocation (RHNA) for extremely low-, very low-, low- and moderate income units. The total capacity identified in the sites inventory of the 2014 Housing Element Background Report is 9,571 units for extremely low-, very low-, and low-income units and 768 moderate-income units. At the time of the background report being written the City capacity exceeded the overall RHNA needs by 7,907 units.[67] Although the Project would re-zone 42 acres from a residential land uses to the parks/recreation land use, as shown in b), above, the change in land use would affect 0.4 percent of land within the City's Sphere of Influence planned for Residential. Thus, cumulative impacts to land use and planning resulting from the development of the Project would be less than significant.

[67] General Plan Housing Element, Amendment 2016-06, Background Report, Page 76. https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=34534

3.11 Mineral Resources

Table 3-24. Mineral Resources

Mineral Resources					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
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?	☐	☐	☒	☐

3.11.1 Environmental Setting

"The most economically significant mineral resources in County are sand, gravel, and crushed stone, used as sources for aggregate used in road materials, concrete and other construction. The two major sources of aggregate are alluvial deposits (riverbeds, and floodplains), and hard rock quarries. Consequently, most County mines are located along rivers at the base of the Sierra foothills."[68]

The nearest oil or gas well to the Project is the W.J. "Carter-Chedester" 1 oil well. It is located 1.25 miles northwest of the Project Site and was abandoned in 1948. According to the California Department of Conservation Division of Oil, Gas and Geothermal Resources Well Finder interactive map, no active wells occur within the Project area.[69]

According to the County of Tulare's Mineral Resource Zone designation, the Project sites easternmost portion intersects with Mineral Resource Zone MRZ-3a (see **Figure 3-17**). MRZ-3a areas are characterized by the State Department of Conservation (DOC) (see additional discussion below) as areas with moderate potential for mineral deposits of economic value. However, the County TMR Zone designations explain that further exploration within the MRZ-3a area would be needed to determine if a higher classification could be justified.

3.11.2 Regulatory Setting

Federal

There are no federal regulations pertaining to mineral resources relevant to the Project.

[68] City of Visalia, 2014. General Plan Update 2030, Background Report. http://www.ci.visalia.ca.us/depts/community_development/planning/gp.asp Date Accessed: 7/6/2016
[69] California Department of Conservation Division of Oil, Gas and Geothermal Resources Well Finder. 2016. http://maps.conservation.ca.gov/doggr Date Accessed: 7/6/2016

State

California Surface Mining and Reclamation Act of 1975

Enacted by the State Legislature in 1975, the Surface Mining and Reclamation Act (SMARA), Public Resources Code Section 2710, et seq., ensures a continuing supply of mineral resources for California. The Act creates surface mining and reclamation policy to ensure that:

- Production and conservation of minerals is encouraged;
- Environmental effects are prevented or minimized;
- Consideration is given to recreational activities, watersheds, wildlife, range and forage, and aesthetic enjoyment;
- Mined lands are reclaimed to a useable condition once mining is completed; and
- Hazards to public safety both now and in the future are eliminated.

Areas in the State (i.e., a city or county) that do not have their own regulations for mining and reclamation activities rely on the Department of Conservation Division of Mine Reclamation to enforce this law. SMARA contains provisions for the inventory of mineral lands in the State of California. The State Geologist, in accordance with the SWRCB Guidelines for Classification and Designation of Mineral Lands, must classify Mineral Resource Zones as designated below:

- MRZ-1. Areas where available geologic information indicates that there is minimal likelihood of significant resources.
- MRZ-2. Areas underlain by mineral deposits where geologic data indicate that significant mineral deposits are located or likely to be located.
    - MRZ-2a. Areas containing mineral deposits that have geologic data to confirm that significant measured or indicated resources are present.
    - MRZ-2b. Areas containing mineral deposits where geologic information indicates that inferred resources are present.
- MRZ-3. Areas where mineral deposits are found but the significance of the deposits cannot be evaluated without further exploration.
    - MRZ-3a. Areas considered having a moderate potential for mineral deposits of economic value.
    - MRZ-3b. Areas that include inferred mineral deposits that could possibly qualify as mineral resources.
- MRZ-4. Areas where there is not enough information to assess the zone. These are areas that have unknown mineral resource significance.

SMARA only covers mining activities that impact or disturb the surface of the land. Deep mining (tunnel) or petroleum and gas production is not covered by SMARA.

Local

There are no local regulations pertaining to mineral resources relevant to the Project.

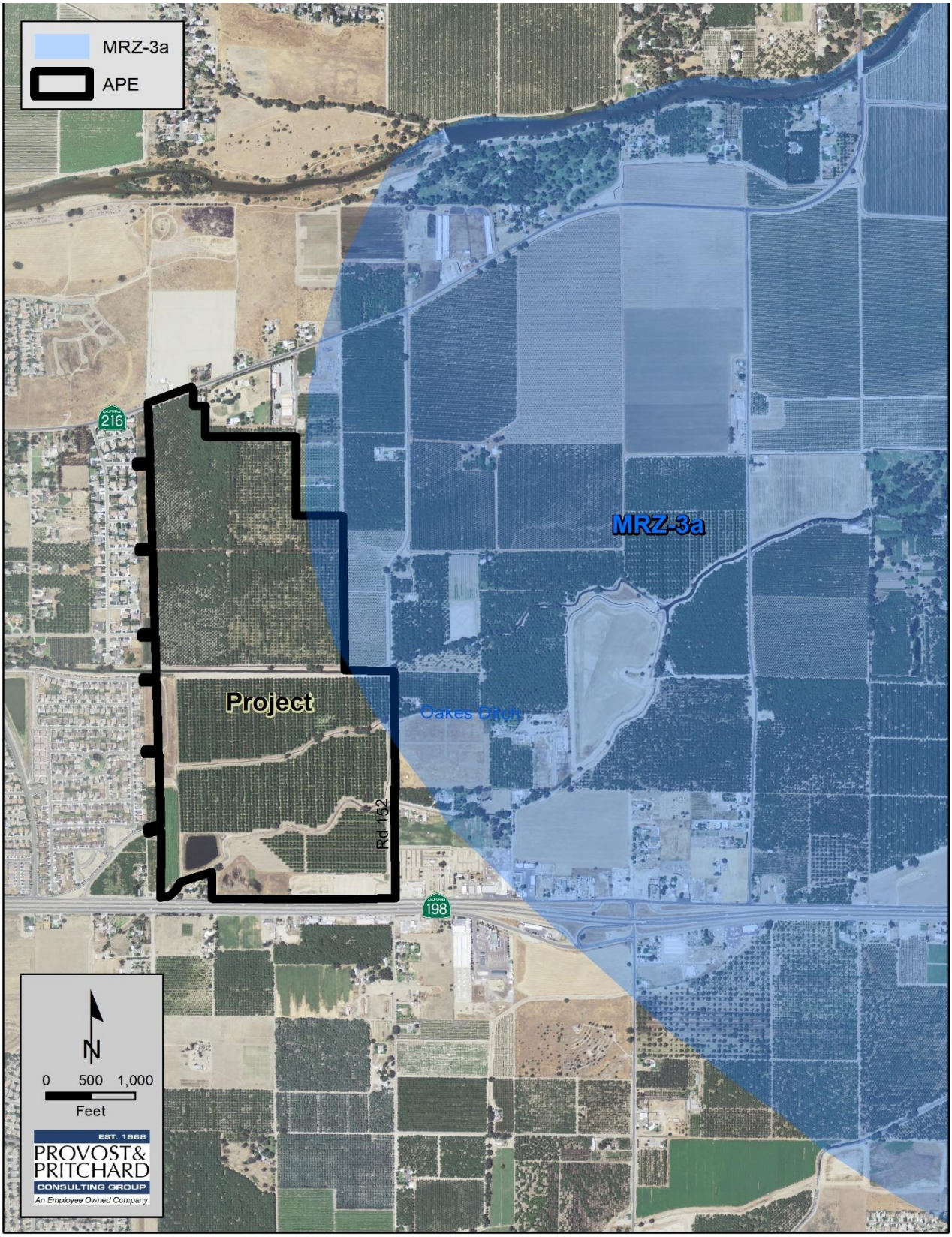


Figure 3-17. Mineral Resource Zone Designation

3.11.3 Impact Assessment

a) Impact Assessment 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?

Less than Significant Impact. Mineral resources located within Tulare County, including within the City, are predominantly sand and gravel resources resulting from alluvial deposits. As demonstrated in **Figure 3-17**, the easternmost portion of the Project site, lies within an MRZ-3a zone, an area of moderate potential for mineral deposits of economic value.

Although the MRZ-3a zone extends within the Project boundaries, the Project would not exploit the untapped potential of the known mineral resource present. The mineral resource would not be removed from the site and development of the site with recharge basins and predominantly open recreational areas would not result in the loss of availability of a known mineral resource through compliance with local, State, and federal legislation and permitting.

The Project would not devalue the mineral resource integrity of the site or result in the removal or alteration of the known mineral resources present. Therefore, the impact to the mineral resource potential of the Project area and adjacent areas would be less than significant.

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?

Less than Significant Impact. See discussion under Impact a) above. Considering that the Project would not remove or significantly alter the MRZ-3a geologic reserve, the Project would result in a less than significant impact to the availability of the known mineral resource for future recovery.

3.11.4 Cumulative Impacts

Less than Significant Impact. No cumulative impacts are anticipated because the Project area would be used as a regional park and recharge facility and no mining activities are present. Accordingly, the Project would have less-than-cumulatively-considerable impacts regarding impacts to mineral resources.

3.12 Noise

Table 3-25. Noise

Noise					
Would the project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b)	Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	☐	☒	☐	☐
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.12.1 Environmental Setting

The Project is located within orchard, natural stream, and low-density residential lands. SR 198 abuts the Project site to the south, contributing traffic noise to the existing conditions. Single-family residential development is west of the Project site, with a 150-foot wide high-voltage powerline easement located between the Project and the neighborhood.

Table 3-26 characterizes the results of the existing noise conditions at the seven (7) receiver locations evaluated in the study area. The results shown in Table 3 of **Appendix L** were used to develop the traffic noise exposure levels at various setbacks to achieve 60, 65, 70, 75, and 80 sound pressure level ($L_{eq}(h)$) A-weighted decibels (dBA) for the major roadways within the study area. Table 4 of **Appendix L** shows the anticipated noise levels for each roadway evaluated within the study area. Figures 6, 7, and 8 of **Appendix L** graphically display the results included in Table 4.

Table 3-26. Noise Receiver Locations

Receiver ID No.	Location	Distance from Noise Source-Roadway Centerline (feet)	Existing Noise Level Leq(h) dBA
1	Residential area located along Arroyo Street, south of Murray Avenue	--	46.0
2	Residential area located Race Avenue, east of Comstock Street	--	49.0
3	Residential Area along Houston Avenue (SR 216), east of Comstock Street	50	58.0
4	Residence located north of Houston Avenue (SR 216), west of Road 152	25	61.0
5	Residence located along Road 152, south of Houston Avenue (SR 216)	25	47.0
6	Residence located along Road 152, north of Mineral King Avenue (Agricultural area)	25	59.0
7	Residence located along Mineral King Avenue, west of Road 152 (Agricultural Area)	20	78.0

Source: VRPA Technologies, 2017 (Appendix L)

Table 3-27. Existing Traffic Noise Contours

STREET SEGMENT	SEGMENT DESCRIPTION	DISTANCE TO CONTOUR (feet)				
		80 L_{eq} (h) dBA	75 L_{eq} (h) dBA	70 L_{eq} (h) dBA	65 L_{eq} (h) dBA	60 L_{eq} (h) dBA
Houston Avenue (SR 216)						
Comstock Street to Road 152	2 lanes Undivided	5	9	15	24	40
Road 152						
Houston Avenue (SR 216) to Mineral King Avenue	2 lanes Undivided	--	5	8	14	23
Mineral King Avenue						
West of Road 152	2 lanes Undivided	16	26	42	70	115

Source: VRPA Technologies, 2017 (Appendix L)

Traffic noise exposure is mainly a function of the number of vehicles on a given roadway per day, the speed of those vehicles, the percentage of medium and heavy trucks in the traffic volume, and the receiver's proximity to the roadway. Every vehicle passage on every roadway in the City radiates noise.

Existing high noise levels along major streets and highways are generally caused by traffic and congestion. Potential impacts along these facilities are generally classified as follows:

- Low – day-night average sound level (L_{dn}) 59 decibel units (dB) or below
- Moderate–- L_{dn} 60 dB to 65 dB
- High–- L_{dn} 66 dB or greater

The potential for adverse noise impacts is generally moderate to high along most segments of State highways and is generally low to moderate along most segments of City streets and highways.

3.12.2 Methodology

VRPA Technologies, Inc. prepared a Noise Study Report in March 2019 for the purpose of identifying potential noise impacts that may result from the Project. The Report is included as **Appendix L.**

Site Selection

Developed and undeveloped land uses in the project vicinity were identified through land use maps, aerial photography, and site inspection. Within each land use category, sensitive receptors were then identified. Land uses in the Project vicinity include agricultural, single-family residences, and industrial uses. The generalized land use data and location of particular sensitive receptors were the basis for the selection of the noise monitoring and analysis sites.

Noise Level Measurement Program

Existing noise levels in the Project vicinity were sampled during the PM peak hour because traffic counts conducted in the study area show a greater volume of traffic in the PM peak hour than the AM peak hour. All measurements were made using an Extech Type 2 sound level meter datalogger.

The following measurement procedure was utilized:

1. Calibrate sound level meter.
2. Set up sound level meter at a height of 1.5 m (5 ft).
3. Commence noise monitoring.
4. Collect site-specific data such as date, time, direction of traffic, and distance from sound level meter to the center of the roadway.
5. Stop measurement after 15 minutes.
6. Proceed to next monitoring site and repeat.

3.12.3 Noise Fundamentals

Sound and Noise

Sound is a process that consists of three components: the sound source, the sound path, and the sound receiver. All three components must be present for sound to exist. Without a source to produce sound or a medium to transmit sound-pressure waves, there is no sound. Sound also must be received; a hearing organ, sensor, or object must be present to perceive, register, or be affected by sound or noise. In most situations, there are many

different sound sources, paths and receivers, not only one of each. Noise is defined as loud, unpleasant, unexpected, or undesired sound.[70]

Sound Pressure Levels and Decibels

The amplitude of a sound determines its loudness. Loudness of sound increases and decreases with increasing and decreasing amplitude. Sound pressure level (SPL) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called bels, named after Alexander Graham Bell. To provide finer resolution, a bel is divided into 10 dB.[71]

Addition of Decibels

Because decibels are logarithmic units, SPL cannot be added or subtracted by ordinary arithmetic means. For example, if one automobile produces an SPL of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. When two sounds of equal SPL are combined, they produce a combined SPL 3 dB greater than the original individual SPL. In other words, sound energy must be doubled to produce a 3 dB increase. If two sound levels differ by 10 dB or more, the combined SPL is equal to the higher SPL; the lower sound level would not increase the higher sound level.[72]

A-Weighted Decibels

Sound pressure level alone is not a reliable indicator of loudness. The frequency, or pitch, of a sound also has a substantial effect on how humans would respond. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear. Human hearing is limited not only in the range of audible frequencies but also in the way it perceives the SPL in that range. In general, the healthy human ear is most sensitive to sounds between 1,000 Hertz (Hz) and 5,000 Hz, and it perceives a sound within that range as being more intense than a sound of higher or lower frequency with the same magnitude. To approximate the frequency response of the human ear, a series of SPL adjustments is usually applied to the sound measured by a sound level meter. The adjustments (referred to as a weighting network) are frequency dependent. The A-scale weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Other weighting networks have been devised to address high noise levels or other special problems (e.g., B-scale, C-scale, D-scale), but these scales are rarely, if ever, used in conjunction with highway traffic noise. Noise levels for traffic reports are typically reported in terms of A-weighted decibels (dBA). In environmental noise studies, A-weighted SPLs are commonly referred to as "noise levels" (**Appendix L**).

Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise, or of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance, and habituation to noise over differing individual experiences with noise. Thus, an important way to determine a person subjective reactions to a new noise is the comparison of it to the existing environment, referred to as the "ambient" environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise would be judged by the hearers (**Appendix L**). Regarding increases in A-weighted noise level, knowledge of the following relationships would be helpful in understanding this report:

1. Except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived by humans.

[70] City of Visalia General Plan DEIR, 2014. Chapter 3.10: Noise. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30500 Page 3.10-1. Date Accessed: 7/6/2016.
[71] City of Visalia General Plan DEIR, 2014. Chapter 3.10: Noise. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30500 Page 3.10-1. Date Accessed: 7/6/2016.
[72] Ibid.

2. Outside of the laboratory, a 3-dB change is considered a just-perceivable difference.
3. A change in level of at least 5 dB is required before any noticeable change in community response would be expected.
4. A 10 dB change is subjectively heard as approximately a doubling in loudness.

Human Response to Changes in Noise Levels

It is widely accepted that the average healthy ear can barely perceive 3 dB noise level changes. A 5-dB change is readily perceptible, and a 10 dB change is perceived as being twice (or half) as loud. As discussed above, doubling sound energy results in a 3 dB increase in sound; therefore, doubling sound energy (e.g., doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.[73]

Noise Descriptors

Noise in our daily environment fluctuates over time. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors most commonly used in traffic noise analysis.[74]

- Equivalent sound level (L_{eq}): L_{eq} represents an average of the sound energy occurring over a specified 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. The 1-hour A-weighted equivalent sound level ($L_{eq}[h]$) is the energy average of the A-weighted sound levels occurring during a 1-hour period.
- Percentile-exceeded sound level (L_x): L_x represents the sound level exceeded for a given percentage of a specified period (e.g., L_{10} is the sound level exceeded 10 percent of the time, L_{90} is the sound level exceeded 90 percent of the time).
- Maximum sound level (L_{max}): L_{max} is the highest instantaneous sound level measured during a specified period.
- Day-night level (L_{dn}): L_{dn} is 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 p.m. and 7 a.m.
- Community noise equivalent level: Community noise equivalent level is 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 p.m. and 7 a.m. and 5 dB added to the A-weighted sound levels occurring between 7 p.m. and 10 p.m.

Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations.

Noise generated by mobile sources typically attenuates (is reduced or drops off) at a rate between 3.0 and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance (**Appendix L**).

Noise generated by stationary sources typically attenuates at a rate between 6.0 to 7.5 dBA per doubling of distance. Sound levels can be reduced by placing barriers between the noise source and the receiver (commonly called the "receptor"). In general, barriers contribute to decreasing noise levels only when the structure breaks

[73] Ibid. Page 3.10-3.
[74] Ibid.

the "line of sight" between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers. Wooden fences or broad areas of dense foliage can also reduce noise but are less effective than solid barriers (**Appendix L**).

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors.[75]

Geometric Spreading: Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dBA for each doubling of distance. Highway noise is unique in that the movement of vehicles makes the source of the sound appear to emanate from a line (i.e., a line source) rather than a point. The drop off rate for line sources is 3 dB per doubling of distance.

Ground Absorption: The noise path between the highway and the observer is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. For acoustically hard sites (i.e., those sites with a reflective surface, such as a parking lot or a smooth body of water, between the source and the receiver), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees, between the source and the receiver), an excess ground-attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the geometric spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance for a line source and 7.5 dBA per doubling of distance for a point source.

Atmospheric Effects: Atmospheric conditions can have a significant effect on noise propagation. Wind has been shown to be the most important meteorological factor within about 500 feet of the source, whereas vertical air-temperature gradients are more important for greater distances. Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lower noise levels. Increased sound levels can also occur as a result of temperature inversion conditions (i.e., increasing temperature with elevation).

Shielding by Natural or Human-Made Features: A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by this shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver specifically to reduce noise. A barrier that breaks the line of sight between a source and a receiver would typically result in at least 5 dB of noise reduction. A taller barrier may provide as much as 20 dB of noise reduction.

Ground-borne Vibration

Annoyance to humans and damage to buildings are the two ground-borne vibration impacts of general concern. The two measurements corresponding to human annoyance and building damage for evaluating ground-borne vibration are peak particle velocity (PPV) and root-mean square (RMS) velocity. PPV is the maximum instantaneous positive or negative peak of the vibration signal, measured as a distance per time (such as millimeters or inches per second). This measurement has been used historically to evaluate shock-wave type vibrations from actions like blasting, pile driving, and mining activities, and their relationship to building damage. RMS is an average, or smoothed, vibration amplitude, commonly measured over 1-second intervals. It is expressed on a log scale in decibels (VdB) referenced to 0.000001 x 10-6 inch per second and is not to be confused with noise decibels. It is more suitable for addressing human annoyance and characterizing background vibration conditions because it better represents the response time of humans to ground vibration signals.

[75] City of Visalia General Plan DEIR, 2014. Chapter 3.10: Noise
. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30500 Date Accessed: 7/6/2016

3.12.4 Regulatory Setting

Federal

EPA's Noise Control Program (40 CFR 204).

The EPA regulates noise sources, such as rail and motor carriers, low noise emission products, construction equipment, transport equipment, trucks, motorcycles, and the labeling of hearing protection devices.

State

State of California General Plan Guidelines

The State of California General Plan Guidelines (OPR 2003) identify guidelines for the noise elements of local GPs, including a sound level/land use compatibility chart that categorizes, by land use, outdoor Ldn ranges in up to four categories (normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable). For many land uses, the chart shows overlapping Ldn ranges for two or more compatibility categories. The noise element guideline chart identifies the normally acceptable range of Ldn values for low-density residential uses as less than 60 dB and the conditionally acceptable range as 55–70 dB. The normally acceptable range for high-density residential uses is identified as Ldn values below 65 dB, and the conditionally acceptable range is identified as 60–70 dB. For educational and medical facilities, Ldn values below 70 dB are considered normally acceptable, and Ldn values of 60–70 dB is considered conditionally acceptable. For office and commercial land uses, Ldn values below 70 dB are considered normally acceptable, and Ldn values of 67.5–77.5 are categorized as conditionally acceptable. When noise levels are in the conditionally acceptable range new construction should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation requirements are included in the design. These overlapping Ldn ranges are intended to indicate that local conditions (existing sound levels and community attitudes toward dominant sound sources) should be considered in evaluating land use compatibility at specific locations.

Local

City of Visalia General Plan

The Noise Element of the City's GP establishes goals and policies intended to limit community exposure to excessive noise levels. The GP identifies noise sources such as roadways, rails, and airports within the city and includes land use compatibility guidelines. In addition, Implementation Policy 2.2 states that an acoustical analysis may be required if existing or projected future noise exposure at the exterior of buildings which would contain noise sensitive uses or within proposed outdoor activity areas exceeds 65 dB, Ldn, or I interior noise levels resulting from off-site noise are estimated to exceed 45 dBA.

Noise Ordinance

VMC Section 8.36 contains the City's Noise Ordinance, which establishes exterior and interior noise level standards. Exterior and interior noise levels may not exceed any of the categorical noise level standards shown in **Table 3-28**:

Table 3-28. City of Visalia - Noise Level Standards

City of Visalia's Noise Level Standards			
Categories	Cumulative number of minutes in any one-hour time period	Evening and daytime (6:00 a.m. to 7:00 p.m.)	Nighttime (7:00 p.m. to 6:00 a.m.)
Exterior Levels			
1	30	50	45
2	15	55	50
3	5	60	55
4	1	65	60
5	0	70	65
Interior Levels			
1	5	45	35
2	1	50	40
3	0	55	45

3.12.5 Impact Assessment

a) Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact with Mitigation Incorporated.

Short-Term Impacts

Implementation of the Project has the potential to result in short-term construction noise impacts to surrounding land uses, representing a short-term impact to ambient noise levels. Although most types of exterior construction activities associated with the Project would not generate continually high noise levels, occasional single-event disturbances from grading and construction activities are possible. **Table 3-29** depicts typical construction equipment noise. Construction equipment noise is controlled by the EPA's Noise Control Program (40 CFR 204).

During the construction phase of the Project, noise from construction activities would add to the ambient noise environment in the immediate area. Activities involved in construction would generate maximum noise levels, as indicated in **Table 3-29**, ranging from 77 to 85dB at a distance of 50 feet. Construction activities would be temporary in nature and are expected to occur during normal daytime working hours in compliance with the City Noise Ordinance. Therefore, noise resulting from short-term, transient construction activity would not result in significant adverse impacts to nearby sensitive receptors, depicted as the blue, yellow, and green areas in **Figure 3-18**.

Table 3-29. Typical Construction Equipment Noise

Construction Equipment Noise	
Type of Equipment	**Sound Levels Measured (dBA at 50 feet)**
Rock Drills	85
Jack Hammers	85
Pneumatic Tools	85
Pumps	77
Dozers	85
Tractor	84
Front-End Loaders	80
Hydraulic Backhoe	80
Hydraulic Excavators	85
Graders	85
Air Compressors	80
Trucks	84

Source: Noise Control for Buildings and Manufacturing Plants (Bolt, Beranek and Newman, 1987)[76].

Long-Term Impacts

Traffic Noise

Future development analyzed within the 2030 GP Planning Area of the would result in increased traffic volumes, thus increasing noise levels in some areas. Tables 13, 14, 15, and 16 and Figures 22 through 51 of **Appendix L** show the predicted noise levels at the modeled receivers evaluated in the study area for the Cumulative Year 2040 With and Without Project conditions. Results of the analysis show that noise at sensitive receptors would not exceed the City's Transportation Noise Source criteria for the Cumulative Year 2040 Plus Project scenarios. There would be minimal changes in the traffic noise exposure levels with the Project at various setbacks of 60, 65, 70, 75, and 80 $L_{eq}(h)$ dBA for the major streets and roads within the study area. Implementation of the Project would not result in significant adverse impacts from traffic noise levels generated as a result of the Project. Therefore, no mitigation measures are needed.

Stationary Noise

The VRPA Noise Study Report demonstrated that Phase 2 on-site operations would impact sensitive receptors directly to the west of the Project and would exceed the City's Stationary Noise Source criteria for the hourly equivalent and maximum sound level. Noise levels on-site are anticipated to peak during games while spectators are present. Noise is generated from cheering spectators and players, as well as referee whistles. Results of the analysis shows that the sensitive receptors directly to the west of the Project Site would be impacted by the ball fields in a worst-case scenario that assumes games are being played on all 13 ball fields at the same time. **Table 3-30** demonstrates that Area 1, Area 2, and Area 3 as shown on **Figure 3-18** below would experience hourly noise levels of 58 dBA, 61 dBA, and 58 dBA respectively, which exceeds the City's Stationary Noise Source Criteria of 50 dBA. Noise reductions of 8 to 11 dBA would be needed to meet City's noise criteria.

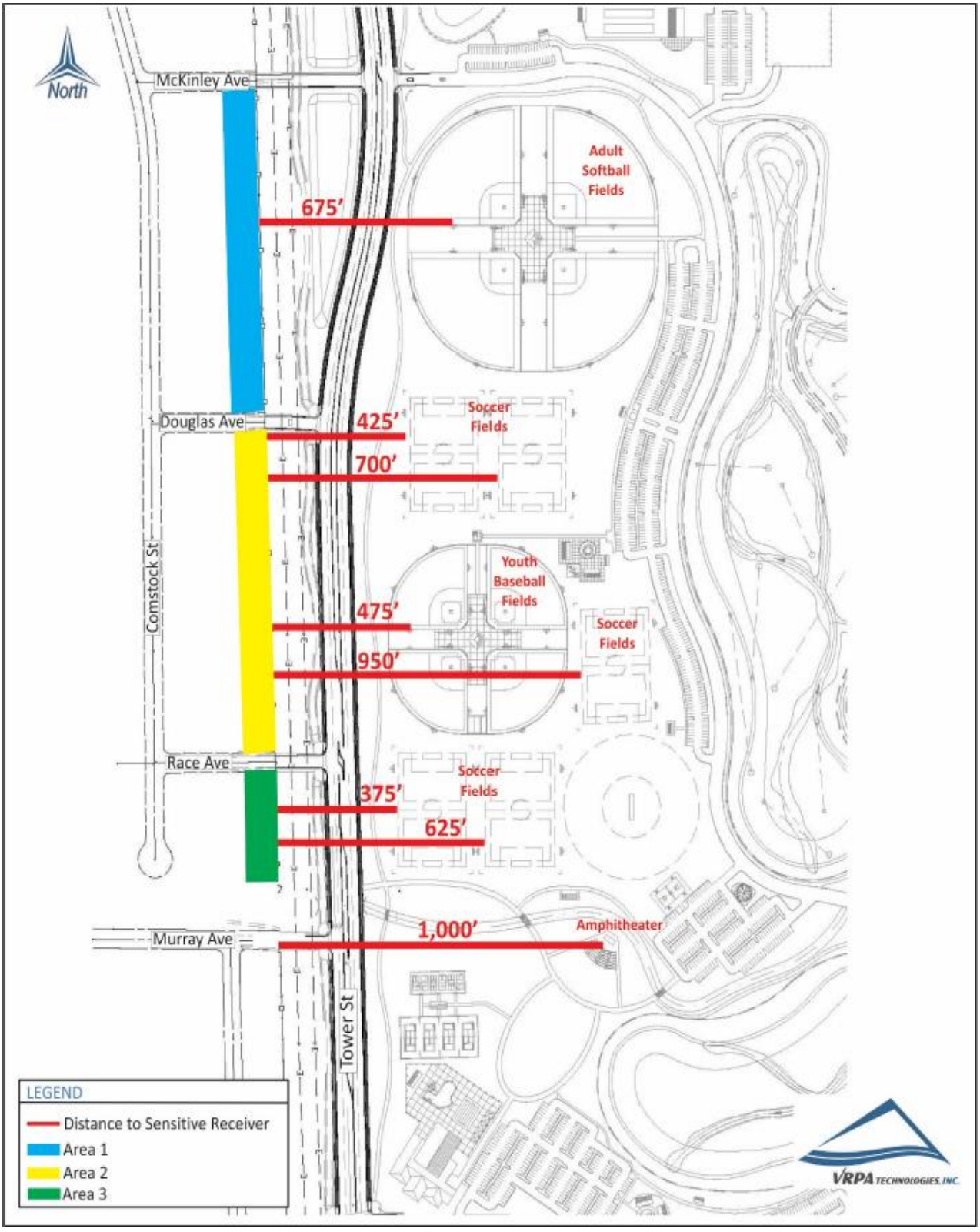
[76] Bolt, Beranek and Newman, Noise Control for Buildings and Manufacturing Plants, 1987.

Table 3-30 also shows that Area 1, Area 2, and Area 3 could experience a maximum sound level of 68 dBA, 71 dBA, and 68 dBA respectively. The estimated maximum noise levels estimated for Areas 1 and 3 do not exceed the City's Stationary Noise Source Criteria of 70 dBA, while Area 2 does.

Table 3-30. On-Site Noise Source Impacts

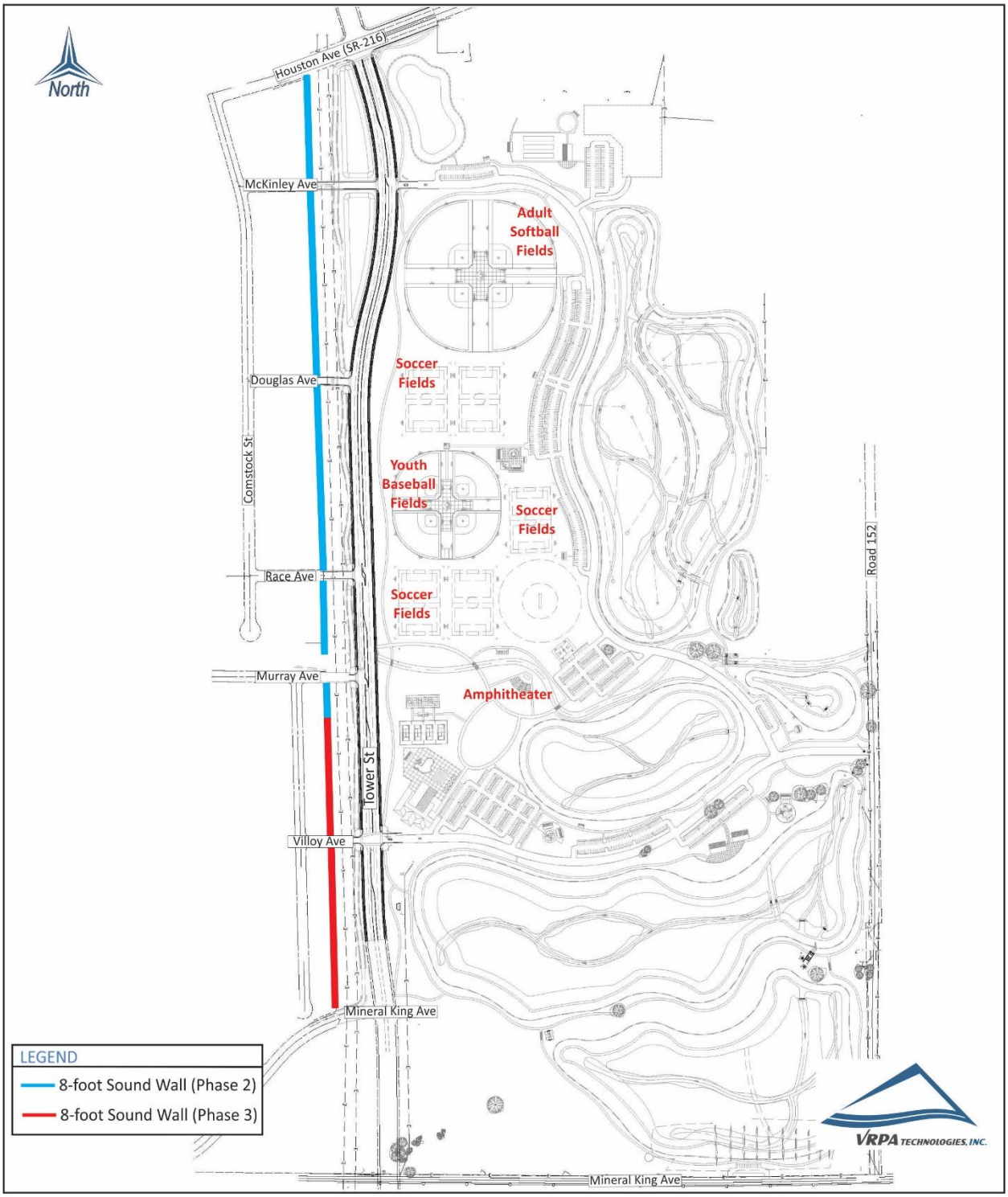
On-Site Noise Source Impacts				
Area	**Hourly Equivalent Sound Level L_{eq} dBA**	**Maximum Sound Level, dBA**	**City of Visalia's Transportation Noise Source Criterion**	**Impact**
1	58.0	68.0	50 L_{eq} (h) / 70 L_{max}	Yes / No
2	61.0	71.0	50 L_{eq} (h) / 70 L_{max}	Yes / Yes
3	58.0	68.0	50 L_{eq} (h) / 70 L_{max}	Yes / No

Source: VRPA Technologies, 2017 (Appendix L)



Source: VRPA Technologies, 2017 (Appendix L)

Figure 3-18. Sensitive Receiver Boundary vs. On-Site Noise Sources



Source: VRPA Technologies, 2017 (Appendix L)

Figure 3-19. Sound Wall Location

In order to reduce potential on-site noise impacts to sensitive receivers to a less than significant level, the Project shall comply with the following recommended mitigation measures:

- **NOI-1 –** Use of softball, baseball, and soccer fields shall be limited to the hours of 7:00 am – 7:00 pm.

- **NOI-2 –** Construction of an 8-foot sound wall along residential boundary of homes directly to the west of Project site (see **Figure 3-19** for approximate location). The sound wall material should consist of concrete block (8" x 8" x 16"), dense concrete (4" thick), or light concrete (4-6" thick). The wall shall provide breaks to allow for flood waters to pass through.

Mitigation Measures NOI-1 and NOI-2 would reduce the Project impacts to sensitive receivers to the west of the Project. Assuming that the height of the sound source and receiver are the same, the 8-foot sound wall would reduce noise levels at sensitive receivers by approximately 20 dBA considering data provided in Caltrans Technical Noise Supplement and FHWA Noise Barrier Design.

Phase 3 of the Project would impact sensitive receivers directly to the west of the Project and exceed the City's Stationary Noise Source criteria for the hourly equivalent sound level. The stage for the amphitheater is located approximately 1,000 feet from the nearest sensitive receptor adjacent to the Project. Noise levels from an amplified event could reach levels of 85 – 90 dBA at 100 feet from speaker equipment, which would generate noise levels between 65-70 dBA at sensitive receivers directly west of the amphitheater.

In order to reduce potential on-site noise impacts to sensitive receivers to less than significant, the Project shall comply with the Mitigation Measure NOI-2 and the following recommended mitigation measures:

- **NOI-3 –** Reorient the amphitheater to the northeast. Grade the amphitheater stage to be at same grade or level than the sensitive receptors to the west.

Mitigation Measures NOI-2 would reduce Phase 2 of the Project impacts to sensitive receivers to the west of the Project. Assuming that the height of the sound source and receiver are the same, the 8-foot sound wall would reduce noise levels at sensitive receivers by approximately 20 dBA considering data provided in Caltrans Technical Noise Supplement and FHWA Noise Barrier Design. Therefore, any impacts would be less than significant with mitigation incorporated. Mitigation Measure NOI-3 would eliminate Phase 3 of the Project impacts to sensitive receivers to the west of the Project site to a less than significant level.

b) Would the project cause exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant Impact with Mitigation Incorporated. Ambient vibration levels in residential areas are typically 50 VdB, which is well below human perception. The operation of heating/air conditioning systems and slamming of doors produce typical indoor vibrations that are noticeable to humans but not considered adverse or significant.

Construction activity can result in ground vibration, depending upon the types of equipment used and proximity to receptors. Operation of construction equipment causes ground vibrations, which spread through the ground and diminish in strength with distance from the source generating the vibration. Building structures that are founded on the soil in the vicinity of the construction site respond to these vibrations, with varied results. Ground vibrations as a result of typical construction activities very rarely reach vibration levels that would damage structures, but can cause low rumbling sounds and detectable vibrations for buildings very close to the site. Construction activities that generally create the most severe vibrations are blasting and impact pile driving. Neither of these activities would be needed to construct the Project.

Vibration levels from various types of construction equipment are shown in **Table 3-31**. The primary concern with construction vibration is building damage. Therefore, construction vibration is generally assessed in terms of peak particle velocity (PPV). Using the highest vibration level shown in **Table 3-31** (L_v 87), the anticipated vibration levels at 100 feet, 150 feet, and 200 feet are 75, 71, and 69 VdB, respectively.

Table 3-31. Vibration Source Levels for Construction Equipment

Vibration Source Levels for Construction Equipment		
Type of Equipment	**PPV at 25 ft (in/sec)**	**Approximate L_v* at 25 ft**
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: VRPA Technologies, Inc. (Appendix L)
* RMS velocity in decibels (VdB) is 1 inch/second. *Lv(distance) = Lv(25 ft) – 20 log (distance/25)*

Construction activities associated with Phases 1, 2, and 3 of the Project would likely require the use of various types of equipment including vibratory rollers, bulldozers, and dump trucks. Based on the vibration levels provided in **Table 3-31**, ground vibration generated by common construction equipment would be 75 VdB and 82 VdB or less at a distance of 100 feet or more. The single-family residences located adjacent to Receiver 6 and Receiver 9 may be subject to vibration levels greater than 75 VdB depending on the location of the construction equipment on the Project site.

In order to reduce potential construction vibration impacts to sensitive receivers to less than significant, all construction phases of the Project shall comply with the following recommended mitigation measures:

- **NOI-4 –** Vibration Monitoring would be conducted during construction of Phases 1, 2, and 3 of the Project when directly adjacent to a sensitive receptor (at Project boundary). Vibration would be monitored along the perimeter of the construction area and at varying distances.

  A vibration criterion of 0.5 inches per second (in/sec) PPV is proposed as the applicable action threshold criteria for ground-borne vibration measurement during proposed remedial construction activities. The 0.5 in/sec PPV criterion has been established by the United States Bureau of Mines as the threshold above which damage to interior plaster walls may occur. This criterion has become recognized by industry as the threshold for the onset of vibration damage to typical residential structures. Collected vibration monitoring results would be compared to the vibration criterion. The results would also be tabulated and reviewed on a weekly basis to assess trends and formulate the basis for mitigation measures, if required.

c) Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact with Mitigation Incorporated.

Traffic Noise

The VRPA Noise Study evaluated the impact of the Project to the modeled sensitive receivers evaluated in the study area. The results indicate that the changes in noise levels, as a result of the Project, are less than significant (**Appendix L**). The Project would result in a maximum increase of eight (8) decibels when comparing Existing

and Existing Plus Project Conditions (Receivers 1 and 2). This increase is primarily due to the construction of Tower Street and the adjustments to existing travel patterns in the study area as a result of Tower Street.

There would be minimal changes in the traffic noise exposure levels at various setbacks of 60, 65, 70, 75, and 80 L_{eq}(h) dBA for the major streets and roads within the study area as shown in **Appendix L**. Implementation of the Project would not result in significant adverse impacts from traffic noise levels within the Project study area. Therefore, no mitigation measures are needed.

Stationary Noise

Stationary Noise impacts were evaluated for Phase 2 in Impact a) above. Noise levels on-site are anticipated to peak during games while spectators are present. Noise is generated from cheering spectators and players, as well as referee whistles. Results of the analysis shows that the sensitive receptors directly to the west of the Project site would be impacted by the ball fields in a worst-case scenario that assumes games are being played on all 13 ball fields at the same time.

In order to reduce potential on-site noise impacts to sensitive receivers to less than significant for Phase 2, the Project shall comply with mitigation measures NOI-1 and NOI-2.

Mitigation Measures NOI-1 and NOI-2 would reduce Phase 2 of the Project impacts to sensitive receivers to the west of the Project. Assuming that the height of the sound source and receiver are the same, the 8-foot sound wall would reduce noise levels at sensitive receivers by approximately 20 dBA considering data provided in Caltrans Technical Noise Supplement and FHWA Noise Barrier Design.

Stationary Noise impacts were also evaluated for Phase 3 in Impact XII-a. The stage for the amphitheater is located approximately 1,000 feet from the nearest sensitive receptor adjacent to the Project. Noise levels from an amplified event could reach levels of 85 – 90 dBA at 100 feet from speaker equipment, which would generate noise levels of approximately 65 dBA at sensitive receivers directly west of the amphitheater.

In order to reduce potential of Phase 3 on-site noise impacts to sensitive receivers to less than significant, the Project shall comply with mitigation measures NOI-2 or NOI-3.

Mitigation Measures NOI-2 and NOI-3 would reduce the Project impacts to sensitive receivers to the west of the Project. Utilizing standards from the Caltrans Technical Noise Supplement and FHWA Noise Barrier Design and assuming that the height of the sound source and receiver are the same, the 8-foot sound wall would reduce noise levels at sensitive receivers by approximately 20 dBA. Therefore, any impacts would be reduced to less than significant with mitigation incorporated.

d) Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact. Construction activities resulting from Project implementation have the potential to result in short-term impacts to ambient noise levels experienced by surrounding land uses. Although most of the types of exterior construction activities associated with the Project would not generate continually high noise levels, occasional single-event disturbances from grading and construction activities are possible. **Table 3-29** depicts typical construction equipment noise. Construction equipment noise is controlled by the EPA's Noise Control Program (40 CFR 204).

During construction of each phase, noise from construction activities would add to the ambient noise environment in the immediate area. Activities involved in construction would generate maximum noise levels, as indicated in **Table 3-29**, ranging from 77 to 85dB at a distance of 50 feet. Construction activities would be temporary in nature and are expected to occur during normal daytime working hours in compliance with the Noise Ordinance. Therefore, noise resulting from short-term, transient construction activity would not result in significant adverse impacts to nearby sensitive receptors.

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 expose people residing or working in the project area to excessive noise levels? and,

No Impact. The Project is not located within five miles of a public airport or public use airport. There would be no impact.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project is not located within the vicinity of a private airstrip. There would be no impact.

3.12.6 Cumulative Impacts

Less than Significant Impact with Mitigation Incorporated. VRPA Technologies Inc. analyzed the cumulative impacts of the Project to the year 2040 (**Appendix L**). Implementation of Mitigation Measures NOI-1 through NOI-4 would reduce the cumulative impacts to a less than significant level. In addition, this Project and other projects in the vicinity would be subject to compliance with the City's Noise Ordinance; therefore, reducing the cumulative impact to a less than significant level.

3.13 Population and Housing

Table 3-32. Population and Housing

Population and Housing					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.13.1 Environmental Setting

According to the California Department of Finance, the City has an estimated population of 136,246 in 2018.[77] In 2010, there were 43,900 housing units, of which 18 percent were multifamily units and 80 percent were single-family units, with the remaining percent as a residential vacancy rate.[78] The demographic projections developed by TCAG in 2009 indicated that Visalia would grow by about 2.5 percent annually between 2010 and 2030 to reach a population of 211,111 in 2030.[79] During the same span of time, TCAG projected that the number of households would grow at about the same pace as population. The number of jobs was projected to increase by about 1.7 percent annually between 2010 and 2030, reaching approximately 91,424 in 2030.[80]

The Project site has scattered rural residences to the north, south, and east with two different urban residential neighborhoods to the west.

3.13.2 Regulatory Setting

There are no federal, State, or local regulations, plans, programs, and guidelines associated with population or housing that are applicable to the Project.

[77] State of California Department of Finance, 2016. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2018 with 2010 Census Benchmark. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/documents/E-5_2018InternetVersion.xls Date Accessed: 7/26/2018.
[78] City of Visalia DEIR, 2014. Chapter 1: Introduction. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30489 Page 3.1-4. Date Accessed: 7/6/2016.
[79] City of Visalia General Plan Housing Element, 2016. Page 15.
[80] City of Visalia DEIR, 2014. Chapter 1: Introduction. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30489 Page 3.1-5. Date Accessed: 7/6/2016.

3.13.3 Impact Assessment

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

No Impact. Project components are intended to address and accommodate expected growth rather than induce it. The recreational facilities and road improvements of the Project are addressed within the City's GP and are intended to accommodate the anticipated future growth of the City. The extension of roads and development of Tower Street are intended to provide access to the East Side Regional Park and to improve traffic flow. This Project would not result in an indirect induction of population growth. There would be no impact.

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. There is no housing located on the Project site; therefore, implementation of the Project would not result in the displacement of any amount of existing housing. There would be no impact.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. As stated in Impact b), there is no housing located on the site; therefore, the Project would in no way displace substantial or insubstantial numbers of people. There would be no impact.

3.13.4 Cumulative Impacts

No Impacts, No cumulative impacts.

3.14 Public Services

Table 3-33. Public Services

Public Services				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

3.14.1 Environmental Setting

Visalia Police Department

The Visalia Police Department (VPD) provides police protection in the City and collaborates with other law enforcement agencies and the District Attorney's office for crime prevention. VPD works with City and County agencies and educational and social service providers on a variety of outreach and youth programs. VPD is engaged in gang prevention efforts ranging from school presentations to intensive management of high-risk probation cases to injunctions against two gangs.[81]

As of 2016, the VPD had 141 sworn officers working out of two districts, as well as 68 professional staff, 18 hourly staff, and 87 volunteers (including reserves, VIPS, Chaplains, and Explorers).[82] Dispatch, records, crime analysis, and other essential law enforcement units are included in the professional and hourly staff.

VPD headquarters is at 303 South Johnson Street in Downtown Visalia, adjacent to City Hall West. In 2007, two substations were opened and shifted to district-based operations. The District 1 substation, serving northern Visalia, is located at 204 Northwest 3rd Avenue, near Lincoln Oval. District 2, at 4100 South County Center Drive, serves the southern part of the City. The Project will be served by the District 1 substation.[83]

[81] City of Visalia, 2014. General Plan Update DEIR – Chapter 9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30499 Page 3.9-1. Date Accessed: 6/22/2016
[82] City of Visalia, 2015. Visalia Police Department 2016 Annual Report. http://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=35742 Date Accessed: 11/26/2017
[83] City of Visalia, 2014. General Plan Update DEIR – Chapter 9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30499 Page 3.9-1. Date Accessed: 6/22/2016

VPD does not establish service standards either in terms of officers per thousand residents or in incident response time. In 2008, VPD reported that its response times were under 15 minutes for 85 percent of all calls and that the average response time for Priority 1 calls was 4.2 minutes.[84]

The City opened the Visalia Emergency Communication Center (VECC) in 2017. The two-story, 18,872 square-foot building was designed as an essential services facility. Located near School Avenue and Burke Street, the VECC is the home for the Emergency Communication Center (911 Dispatch), VPD Administration including the Emergency Operation Center, Traffic Management Center and the City's secure Data Center for Information Services.

Visalia Fire Department

The VFD handles emergency and fire calls within the City. In 2015, the VFD responded to over 14,000 calls for service. There was a 20% increase in calls for service, including vegetation and structural fires, from 2010 to 2015 and a 26% increase in EMS calls in the same time period.[85] In total in 2015, 65% of incidents were EMS/rescue related, 21% were fires, 5% were service calls, and 2% were due to hazardous conditions. The remaining 7% were either false calls or miscellaneous, other calls. It is anticipated that the VFD would respond to approximately 18,000 annual calls for service by the end of 2019.[86]

VFD has 76 uniformed and 7 non-uniformed personnel, with at least 26 on duty at any time. Personnel are trained in fire suppression and certified as Emergency Medical Responders. Organized into six response areas, VFD operates six stations to serve all parts of the City, and has six fire engines and a 105-foot aerial truck as well as five reserve fire engines and two reserve ladder trucks.[87] Stations are located in each quadrant of the City plus a fifth station near Mooney Blvd serving south central, as well as the Downtown station adjacent to the police headquarters. The Project area is served by Station 56, located at 1968 S. Lovers Lane, 1.2 miles southwest of the Project site. This station accounted for 11% of service calls in 2015, the second fewest of the six stations.[88]

The VFD also contains a Type I Hazardous Materials team, including 23 certified Hazardous Materials Specialists managed by one Battalion Chief. This team serves Tulare and Kings County locally and is available for use State-wide in the case of a large-scale incident.[89]

Fire prevention is an important part of VFD's work. VFD conducts weed and abandoned vehicle abatement to remove common sources of fire and presents public education programs in schools and other venues.[90]

VFD follows the National Fire Protection Association (NFPA) service ratio standard of one responder per 1,000 residents. VFD does not currently meet that standard; current staffing of 76 uniformed personnel[91] translates to 0.56 responders per 1,000 residents. VFD also follows the NFPA response time standard, aiming to respond to 95 percent of calls within 5 minutes, including one minute of "turnout" and four minutes of driving.[92] VFD currently has an average fire response time of 5 minutes and 30 seconds, and an average EMS response time of 5 minutes and 11 seconds.[93]

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[84] Ibid. Page 3.9-3
[85] City of Visalia, 2015. City of Visalia Fire Department 2015 Annual Report. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=32932 Date Accessed: 7/28/2016
[86] Ibid.
[87] City of Visalia Fire Department, 2016. Visalia Fire Department Information . http://www.ci.visalia.ca.us/depts/fire/info/default.asp Date Accessed: 8/2/2016
[88] Ibid.
[89] Ibid.
[90] City of Visalia, 2014. General Plan Update DEIR – Chapter 9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30499 Page 3.9-3.Date Accessed: 6/22/2016
[91] Visalia Fire Department Website. http://www.visalia.city/depts/fire/info/default.asp Accessed 7/27/2018.
[92] City of Visalia, 2014. General Plan Update DEIR – Chapter 9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30499 Page 3.9-3.Date Accessed: 6/22/2016
[93] Visalia Fire Department Annual Report 2017. Page 7. http://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=38459 Accessed 7/27/2018.

VFD has mapped the areas within four-minute driving-time range of each station.. Areas of southwest Visalia and smaller areas in the northwest and northeast cannot reasonably be served within the VFDs target response time. [94]

Evacuation Routes and Potential Shelter Sites

The City has designated several evacuation routes through Visalia to be used in case of catastrophic emergencies. The extent and severity of a disaster would determine which routes and which direction people must take in order to escape or avoid the afflicted areas. Kaweah Health Care District provides emergency health care services to residents of the City, including any within or near the Project site.[95]

In the event of a natural or man-made disaster, the City would coordinate with the Red Cross, Salvation Army, and State and federal agencies responsible for providing emergency shelter for displaced residents. The sites most commonly used are schools, senior centers, community centers, public buildings, and churches.[96]

Schools

The Project site is within Visalia Unified School District (VUSD), which provides public education from Kindergarten through 12th Grade. The District includes 26 elementary schools, five middle schools, four traditional high schools, and alternative education programs. A comprehensive campus including Golden Oak Elementary School, Valley Oak Middle School, Golden West High School, and Visalia Adult School is located approximately one-half mile to the northwest. Mineral King Elementary School is located 0.76 miles to the southwest of the Project Site.

Parks, Open Space, and Recreation

Currently, Visalia has 37 parks located throughout the City. Four community parks (Fairview Village Park, Recreation Park, Seven Oaks Park, and Whitendale Park) provide a wider variety of community amenities or are co-located with community centers and range from approximately 9 to 14 acres in area. Three large parks, Mooney Grove, Plaza Park, and Riverway Sports Park, are located at the periphery. The St. John's Trail (St. John's Riverway) forms much of the northern edge of the City. Altogether, there are 678 acres of parkland within the City. Tulare County's Cutler Park provides an additional 50 acres northeast of the Project site.[97] The nearest neighborhood park to the Project Site is Mill Creek Garden Park, less than one mile west of the site. The Project would increase the City's park acreage, helping the City to meet its goal of 5 acres of park for every 1,000 people.[98] The City currently has approximately 4.74 acres of park per 1,000 people.

3.14.2 **Regulatory Setting**

Federal

There are no federal regulations, plans, programs, or guidelines that are applicable to the Project.

[94] Ibid, Page 3.9-4.
[95] Ibid.
[96] Ibid.
[97] City of Visalia, 2014. General Plan Update DEIR – Chapter 9: Public Services, Facilities, and Utilities. City of Visalia DEIR, 2014. Chapter 9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30499 Page 3.9-14. Date Accessed: 6/22/2016
[98] Visalia General Plan. 2014. Page 5-2.

State

State Open Space Standards

GC Section 65560, et seq. provides a structure for the preservation of open space by requiring every city and county in the state to prepare, adopt, and submit to the Secretary of the Resources Agency a "local open-space plan for the comprehensive and long-range preservation and conservation of open-space land within its jurisdiction." Local agencies typically meet this requirement via policies and programs contained in the Open Space Elements of their general plans. The State identifies the following open space categories for preservation:

- Open space for public health and safety, including, but not limited to, areas that require special management or regulation due to hazardous or special conditions.
- Open space for the preservation of natural resources, including, but not limited to, natural vegetation, fish and wildlife, and water resources.
- Open space for resource management and production, including, but not limited to, agricultural and mineral resources, forests, rangeland, and areas required for the recharge of groundwater basins.
- Open space for outdoor recreation, including, but not limited to, parks and recreational facilities, areas that serve as links between major recreation and open space reservations (such as trails, easements, and scenic roadways), and areas of outstanding scenic and cultural value.
- Open space for the protection of Native American sites, including, but not limited to, places, features, and objects of historical, cultural, or sacred significance such as Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property (further defined in PRC Sections 5097.9 and 5097.993).

Local

City of Visalia General Plan: Parks, Schools, Community Facilities, and Utilities

The Parks, Schools, Community Facilities, and Utilities Element (which contains the mandatory criteria of an open space element) of the City's GP was last comprehensively updated in 2014. Regarding parks and recreation, the Element presents City's policies and programs for the development and maintenance of parks, schools, and other fundamental building blocks for new neighborhoods to be built over the next two decades. The Element objectives and goals pertaining to public services are as follows:

Fire:

- Policy S-O-4: Protect Visalia's residents and businesses from potential fire hazards.
- Policy S-P-22: Manage vegetation in areas within and adjacent to public rights-of-way and in close proximity to critical facilities in order to reduce the risk of tree failure and property damage and avoid creation of wind acceleration corridors within vegetated areas.
- Policy S-P-27: Implement a fuel modification program, which also includes residential maintenance requirements and enforcement, plan submittal and approval process, guidelines for planting, and a listing of undesirable plant species. Require builders and developers to submit their plans, complete with proposed fuel modification zones, to the Fire Department for review and approval prior to beginning construction.
- Policy S-P-29: Ensure availability of adequate water supplies to meet public health and safety needs, and for resource protection, by maintaining the following order of priority for water use:
  - Potable water supply, fire protection, and domestic use
  - Resource protection and preservation

- Industrial, irrigation and commercial uses
- Water-oriented or water-enhanced recreation
- Air conditioning.

Police:

- Policy S-O-5: Provide a comprehensive program of safety services including police, fire and medical response in all parts of the Visalia Planning Area.
- Policy S-P-30: Integrate the Tulare County Hazard Mitigation Plan, in particular the hazard analysis and mitigation strategy sections, into the development review process, the emergency operations plan, and capital improvement program, as appropriate.
- Policy PSCU-P-27: Investigate opportunities to locate emergency services substations (police, fire, etc.) adjacent to park sites.

Schools:

- Policy PSCU-O-8 Place elementary schools at the core of neighborhoods and co-locate schools with parks and neighborhood commercial areas.

Parks:

- Policy PSCU-O-1: Design parks and recreation facilities that will enhance community identity and serve the recreation and social needs of Visalians of all ages, economic situations and physical abilities.
- Policy PSCU-O-2: Continue to develop and expand special recreation amenities and programs for teens, senior citizens, and ethnic populations.
- Policy PSCU-O-3: Ensure that a wide variety of quality sports and aquatics opportunities, including Sports Tourism, are available to the community.
- Policy PSCU-O-4: Emphasize health and wellness programs in light of childhood obesity and Type II diabetes challenges in the City and County.
- Policy PSCU-O-5: Continue Visalia's strong volunteer program by expanding meaningful opportunities for community service in Parks and Recreation Department programs.
- Policy PSCU-O-6: Maximize opportunities for joint use of public land and facilities involving schools, stormwater ponding basins and other areas under public jurisdiction suitable for recreation.
- Policy PSCU-P-25: Encourage cooperative agreements with the City and the Kaweah Water Conservation District, levee districts, irrigation companies, school district, College of the Sequoias, Southern California Edison Company and other public agencies and utilities to explore innovative recreation open space facilities throughout the Visalia planning area.
- Policy PSCU-P-1: Prepare a Parks and Recreation Master Plan to implement Park policies in this General Plan. The Plan should include:
  - An assessment of existing and future recreational needs, including the needs of specific user groups and the needs of older areas of the community as well as those in new neighborhoods;
  - An assessment of opportunities for joint-use of City-owned stormwater detention basins on a year-round or seasonal basis, including priorities, access, improvement needs, security and cost-sharing arrangements;
  - Involvement of teens in design of teen programs and seniors in programs serving them;
  - A comprehensive program for providing facilities and recreational activities for identified needs, developed in consultation with VUSD and others involved in recreation programs, including joint-use opportunities with VUSD and other school districts and College of the Sequoias (COS), and joint-use opportunities with City facilities, such as retention basins;

  - Proposals for coordinating affordable child care with the City's recreation programs;
  - Detailed design, construction and maintenance standards for parks and community centers and aquatic facilities emphasizing universal accessibility and barrier-free design, durability, low maintenance, and low water use;
  - A program for retrofitting existing facilities to remove barriers to handicapped users over time;
  - An action plan to define priorities, responsibilities and scheduling; and
  - A comprehensive financing strategy for park and recreation facilities, including but not limited to the Park Acquisition and Development Fee, Recreation Program Fee policies, including provisions for fee reductions, scholarships and sponsorships, and marketing, including recreation as part of the City's overall economic development plan.

- Policy PSCU-P-2: Strive to achieve and maintain a citywide standard of at least five acres of neighborhood and community parks per 1,000 residents.
- Policy PSCU-P-3: Reserve land and develop parks and public open spaces and recreation facilities consistent with designated Parks and Open Space land on the Land Use Diagram.
- Policy PSCU-P-4: Create one large new park at the City's eastern edge to enhance the City's eastern gateway along Highway 198, ensure separation between communities, and provide ample recreation space for the larger area.
- Policy SCU-P-5: Create new community parks in the Northwest, Southwest, and Southeast quadrants, consistent with the Parks and Open Space diagram and the following planning guidelines:
  - Size: 5-12 acres or more; and
  - Facilities to be provided: large children's play area, reserved picnic facilities, open play fields, community building, bicycle parking, and off-street parking. They also may include tennis courts, outdoor concert areas or other special facilities based on neighborhood needs and community input.
- Policy PSCU-P-11: Develop a system of natural corridors and greenways, consistent with the Parks and Open Space diagram (Figure 5-1). These corridors will have biking and walking trails offering recreational opportunities and links between neighborhoods, parks, and Downtown. The system of corridors will include waterway corridors as well as linear landscaped corridors to create natural gateways, parkways or buffer areas. More specifically, this system is envisioned to include:
  - Greenway corridor along the St. Johns River, including broader areas to the northwest to accommodate open space areas, large group picnic facilities, a nature center, or other uses;
  - Greenway corridors along Mill, Packwood and Cameron Creeks, and segments of other waterways, with sufficient width to protect riparian habitat and accommodate a multi-use trail;
  - A landscaped corridor on both sides of Highway 198 providing a scenic gateway into Visalia from the west; and
  - A landscaped buffer zone or parkway along Shirk Road separating industrial from residential areas, and a greenway along Road 148 marking the eastern edge of the City, both accommodating a multi-use trail.
- Policy PSCU-P-13: Design parks to enhance neighborhood character and minimize negative impacts.
  - Locate neighborhood parks with local or collector street frontages on at least three sides, and sidewalks and crossings designed for safe and easy pedestrian access.
  - Where a neighborhood park is part of a neighborhood node, it should be designed to promote visual connections and pedestrian movement between the park and adjacent uses such as schools and commercial uses.

- Policy PSCU-P-14: Provide lighted facilities for tennis, basketball or other recreational facilities and along pathways in order to extend usable hours. Lighting should be energy-efficient and designed to minimize light pollution.
- Policy PSCU-P-15: Provide at least one community center in each of the City's four neighborhood quadrants. Use existing and new com-munity center facilities to provide multicultural programs and teen recreation activities and provide space for meetings and classes. Community centers should be designed with community input, including guidance from a cross-section of user groups.
- Policy PSCU-P-19: Promote private-sector and joint public-private development of commercial recreation facilities for league softball, indoor swimming, and golf, and other recreation uses that are available to the public for a fee or on a limited basis. Commercial recreation facilities will not be counted toward the City's parkland acreage standard because they are not publicly accessible for all residents.
- Policy PSCU-P-23: Promote innovative park design that responds to neighborhood needs and user groups.
- Policy PSCU-P-24: Provide shade in parks by using arbors and other landscaping techniques.
- Policy PSCU-P-25: Encourage cooperative agreements with the City and the Kaweah Water Conservation District, levee districts, irrigation companies, school district, College of the Sequoias, Southern California Edison Company and other public agencies and utilities to explore innovative recreation open space facilities throughout the Visalia planning area.
- Policy PSCU-P-26: Develop standards for recreation use on dual purpose park/pond sites to ensure that slopes and pumping equipment do not preclude recreation use and maintenance.
- Policy PSCU-P-28: Offer nature study programs to increase community awareness of open space opportunities and habitat enhancement in City parks and along community waterways.
- Policy PSCU-P-29: Incorporate barrier-free design in all new recreation and sports facilities, and renovate existing facilities to remove barriers to handicapped users.
- Policy PSCU-P-46: Adopt and implement a Water Efficient Landscaping Ordinance for new and/or refurbished development that exceeds mandated sizes, and ensure that all new City parks, streetscapes, and landscaped areas conform to the Ordinance requirements. The Ordinance should include provisions to optimize outdoor water use by:
  - Promoting appropriate use of plants and landscaping;
  - Establishing limitations on use of turf including size of turf areas and use of cool-season turf such as Fescue grasses, with exceptions for specified uses (e.g., recreation playing fields, golf courses, and parks);
  - Establishing water budgets and penalties for exceeding them;
  - Requiring automatic irrigation systems and schedules, including controllers that incorporate weather-based or other self-adjusting technology;
  - Promoting the use of recycled water; and
  - Minimizing overspray and runoff.
- Policy PSCU-P-47: Implement a program of irrigation water use analyses, irrigation surveys, irrigation audits or similar techniques using available technology to evaluate water use in existing City parks and landscape areas, and undertake improvements to reduce water use to a level that does not exceed the Maximum Applied Water Allowance as calculated under the Water Efficient Landscaping Ordinance under Policy CO-P-3.
- Policy PSCU-P-48: Establish a program to reduce water use in municipal buildings and allow use of recycled water (treated wastewater) in buildings and irrigation, as feasible and appropriate.

Other Public Facilities:

- Policy PSCU-P-59: Require new developments to incorporate flood water detention basins into project designs where consistent with the Stormwater Master Plan and the Groundwater Recharge Plan.
- Policy PSCU-P-60: Control urban and stormwater runoff, and point and non-point discharge of pollutants. As part of the City's Stormwater Management Program, adopt and implement a Stormwater Management Ordinance to minimize stormwater runoff rates and volumes, control water pollution, and maximize groundwater recharge. New development will be required to include Low Impact Development features that reduce impermeable surface areas and increase infiltration. Such features may include, but are not limited to:
  - Canopy trees or shrubs to absorb rainwater;
  - Grading that lengthens flow paths over permeable surfaces and increases runoff travel time to reduce the peak hour flow rate;
  - Partially removing curbs and gutters from parking areas where appropriate to allow stormwater sheet flow into vegetated areas;
  - Use of permeable paving in parking lots and other areas characterized by significant impervious surfaces;
  - On-site stormwater detention, use of bioswales and bioretention basins to facilitate infiltration; and
  - Integrated or subsurface water retention facilities to capture rainwater for use in landscape irrigation and other non-potable uses.

Waterways and Trails Master Plan

The Waterways and Trails Master Plan outlines goals, policies, design standards, and implementation strategies for the development of a multi-purpose trail system, often times along Visalia's primary community waterways. The trail system would link neighborhoods, parks, schools, the downtown, and other activity centers. The Plan focuses on developing trails along three waterways: Packwood Creek, Mill Creek, and Cameron Creek. The Master Plan also identifies that the Class I trail that runs along Mill Creek would connect to the proposed Class I trail running north/south along the power line easement, west of the Project site.[99] These trails are designed to link with the City's existing bicycle network and the trail system along the St. John's River along the north edge of the City. Ultimately, the completed system would form a "ring recreational trail" around the City's periphery, several cross-town routes along waterways and other primary corridors, and a major north/south route along Santa Fe Avenue. Currently in the design phase the Greenway Trail would run alongside the Project, within the Tower Road easement.

Along each waterway, a preferred trail alignment is identified, and recommendations and policies are made for landscaping improvements and habitat restoration within the waterway setback.

Tulare County Fire Department

Tulare County Fire Department provides fire and emergency medical services within the unincorporated areas of County. The City and the County have a mutual aid agreement that encompasses 59 square miles surrounding the City[100].

[99] City of Visalia, February 2010. Waterways and Trails Master Plan. https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=31825 Date Accessed: 7/30/2018
[100] City of Visalia General Plan, Safety and Noise Element.

City of Visalia Fire Department Plan Check and Hydrant Ordinance

Visalia's requirements for new construction include provisions for the fire department to review building and site plans prior to the issuance of any permit. The fire department ensures that the Project would be adequately served by water and accessible to emergency vehicles. The VFD also enforces the City's Hydrant Ordinance, which states that subdividers are responsible for the installation of water mains and hydrants, and determines the minimum spacing for fire hydrants. Street dimensions are scrutinized to ensure that space would be preserved for ladder trucks to be stabilized and for emergency vehicles to turn around.

Master Mutual Aid Plan

The City actively participates in the California Master Mutual Aid Plan. Formal mutual aid agreements have been written between the City and surrounding jurisdictions. A broad automatic aid agreement encompassing 59 square miles surrounding Visalia exists between Tulare County and the City.

Multi-Jurisdictional Local Hazards Mitigation Plan

The MJ-LHMP is a formal document designed to significantly reduce loss of life and injuries resulting from a disaster; minimize damage to structures and property, as well as destruction of essential services and activities; protect the environment; and promote hazard mitigation as an integrated public policy. The most recent version of the MJ-LHMP was adopted in 2011 and updated in March 2018.

3.14.3 **Impact Assessment**

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire Protection?

No Impact. The Project is within the service area of VFD Station 56 (Station 56), which is located 1.2 miles southwest of the Project. VFD provides services within the city limits. Thus, after the annexation of the northern portion of the Project site into the city limits, the entire extent of the Project area would be served by VFD. The Project site is within the VFDs target response time area. The Project would not have a significant impact concerning demand for fire protection.

Police Protection?

No Impact. The northern portion of the Project site is currently served by the Tulare County Sheriff. Following annexation, the VPD would provide service to the entire Project area. The VPDs main headquarters is located in Downtown Visalia and leads two substations that engage in district-based operations. Both the main headquarters and the District 1 substation would sufficiently serve the Project area.[101] There would be no impact to police services.

Schools?

No Impact. The Project would not include any residential development, nor would it directly or indirectly induce population growth. Project implementation would not result in an increase in students at any school.

[101] City of Visalia 2014. Draft Environmental Impact Report – Chapter 3.9: Settings, Impacts, and Mitigation, Public Services, Facilities and Utilities. http://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30499 Page 3.9-1 to 3.9-3. Date Accessed: 8/8/2016

Parks?

No Impact. The Project would include the conversion of agricultural and residential planned land uses to a regional park and recharge facility. Therefore, the development of this Project would not have an adverse impact on parks and recreation; rather, it would improve the City's recreational facilities and decrease dependence on existing parks.

Other Public Facilities?

No Impact. The Project would not generate, directly or indirectly, any new residences or businesses that could lead to the need for the expansion of existing public facilities or the creation of new facilities. There would be no impact.

3.14.4 **Cumulative Impacts**

No Impacts. There are a total of four projects that have been proposed or approved within four miles of the Project site. Implementation of this Project in combination with the four projects would result in a more developed urban area, which would utilize more public services. While many of the proposed projects, including this Project would utilize public services, each project is required to pay fees to assist in providing adequate public services to the area as it grows. Public services would increase as development increases. This is addressed in the City and County GPs. As a result of this Project, no cumulative impacts would occur.

3.15 Recreation

Table 3-34. Recreation

Recreation					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Would the project 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)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☒	☐	☐

3.15.1 Environmental Setting

The City classifies parks and public open space into five general categories. Facilities at each park type vary according to size. Most neighborhood parks have picnic tables, play equipment, and drinking fountains. Community and regional parks have these amenities as well as a combination of sports fields/courts, barbecue areas, parking, restrooms and facilities for other types of recreation. Parks are classified as follows:[102]

- Pocket Park: A park typically between one-half acre and two acres in size intended to serve the needs of a specific neighborhood within a half-mile radius.
- Neighborhood Park: A park typically two to five acres in size that provides basic recreation activities for one or more neighborhoods. The service area ranges from a half-mile to a one-mile radius. These parks may include facilities such as children's playgrounds, picnic tables, benches, and walkways. Many neighborhood parks are planned adjacent to new schools, and actual neighborhood park sizes may be as large as 10 acres depending on neighborhood size and need.
- Community Park: A park typically ranging from 5 to 12 acres in size or larger, depending on the needs of the quadrant. Community parks are intended to serve the recreational needs of a larger area of the city, and particularly those residents living or working within a two-mile radius. These parks may include facilities such as sport fields, exercise courses, recreation buildings, and restrooms. Other facilities may include community centers, swimming pools, tennis courts, and concession stands.
- Large City Park: A park generally larger than 40 acres in size intended to serve the recreational needs of all city residents and to create opportunities for contact with the natural environment. These parks may include a concentration of sports fields, golf courses, and areas for picnicking and passive enjoyment of open space. The Project would fall into this category.
- Natural Corridors and Greenways: A network of greenways of varying size intended to serve the recreational needs of city residents. These parks may include facilities such as bikeways, walkways, and riding trails, and are primarily developed along the City's waterways. Mill Creek and Packwood passing through the Project site fall into this category.

[102] City of Visalia, 2014. General Plan Update DEIR – Chapter 9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30499 Page 3.9-13. Date Accessed: 6/22/2016.

Existing Parks and Recreation Facilities

Currently, Visalia has 37 parks dispersed throughout the City. Four community parks (Fairview Village Park, Recreation Park, Seven Oaks Park, and Whitendale Park) provide a fuller range of community amenities or are co-located with community centers and range from approximately 9 to 14 acres. Three larger facilities, Mooney Grove Park (County), Plaza Park, and Riverway Sports Park are located at the periphery. The St. John's Trail (St. John's Riverway) forms much of the northern edge of the City. Altogether, there are 678 acres of parkland within the City. County's Cutler Park provides another 50 acres northeast of the Project; this acreage is not counted as park acreage for the City.[103] The nearest neighborhood park to the Project site is Mill Creek Garden Park, located less than one mile west of the site. The Project would increase the City's park acreage, thereby helping the City to meet its goal of 5 acres of park for every 1,000 people.[104]

3.15.2 Regulatory Setting

Federal

There are no federal regulations pertaining to recreation that apply to the Project.

State

State Open Space Standards

Refer to **Section 3.14.2 Regulatory Setting**.

Quimby Act

The 1975 Quimby Act (GC Section 66477) authorizes cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. The Act states that the dedication requirement of parkland can be a minimum of three acres per thousand residents or more and up to five acres per thousand residents if the existing ratio is greater than the minimum standard. Revenues generated through in-lieu fees collected and the Quimby Act cannot be used for the operation and maintenance of park facilities. In 1982, the Act was substantially amended. The amendments further defined acceptable uses of, or restrictions on Quimby funds, provided acreage/ population standards and formulas for determining the exaction, and indicated that the exactions must be closely tied (i.e., via nexus) to project impacts as identified through studies required by CEQA.

Local

City of Visalia General Plan

Refer to **Section 3.14.2 Regulatory Setting** for relevant information regarding the City of Visalia General Plan.

Waterways and Trails Master Plan

As previously discussed in **Section 3.10.2**, the Waterways and Trails Master Plan, outlines goals, policies, design standards, and implementation strategies for the development of a multi-purpose trail system along Visalia's primary community waterways.

[103] City of Visalia, 2014. General Plan Update DEIR – Chapter 9: Public Services, Facilities, and Utilities. City of Visalia DEIR, 2014. Chapter 9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30499 Page 3.9-14. Date Accessed: 6/22/2016

[104] Visalia General Plan. 2014. Page 5-2.

3.15.3 Impact Assessment

a) Would the project 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?

Less than Significant Impact. The Project itself is a recreational facility. The Project includes the construction of park facilities and does not include residential development. Conversely, the Project would increase the number and available acreage of recreational facilities within the City; the City's GP outlines the need for a regional park in the eastern portion of the City, which the Project would satisfy.[105] The GP has a standard of 7.6 acres of park per every 1,000 residents.

The Project would add to the needed recreational facilities, to continue to meet the GP standards for population-park acreage ratio and would increase recreational use in the area. Project activities do not include residential development activities and helps meets the expectations of the City's GP. Therefore, impacts would be less than significant.

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

Less than Significant Impact with Mitigation Incorporated. The Project includes the construction of a regional park; thus, recreational facilities would be developed. The Project plan includes the development of recreational facilities as described in Chapter 2, Project Description.

The physical and environmental impacts of this Project are outlined throughout this EIR. The primary source of environmental impacts would occur during the construction phase of the Project. The potential environmental impacts would involve ground-disturbance, air pollution from ground disturbance and construction equipment, cultural resource discoveries, noise, traffic, and biological resources. Impacts are discussed in greater detail within their respective Impact Analysis sections and include mitigation measures to reduce impacts to less significant levels.

The Project is a recreational use. The construction and operation of the new facilities would expand the recreational amenities within the City. The Project would not result in any new impacts beyond those evaluated with this DEIR. The overall implementation of the Project would be mitigated to a less than significant level in accordance with the requirements of CEQA. Mitigation measures can be found with the in **Chapter 6.**

3.15.4 Cumulative Impacts

Less than Significant. General growth and specific development proposals in the area would contribute to a cumulative increase in the demand for recreational facilities. The related project list identifies some residential and commercial projects. An increase in the population within the Project area would result in a proportional increase in the demand for recreational facilities. This would marginally affect the existing public recreational facilities in the area. However, this Project would satisfy an additional need for park space generated by the cumulative project list. In addition, any new City development is subject to the City's Quimby Act and environmental review procedures. Each new development is required to provide recreational land or facilities, pay in-lieu park fees, or otherwise mitigate their potential impacts. Therefore, cumulative impacts are less than significant.

[105] City of Visalia, 2014. General Plan Update – Chapter 5: Parks, Schools, Community Facilities, and Utilities. http://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30477 Page 5-10. Date Accessed: 6/22/2016

3.16 Transportation/Traffic

Table 3-35. Transportation/Traffic

Transportation/Traffic					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
e)	Result in inadequate emergency access?	☐	☐	☒	☐
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☒	☐	☐	☐

3.16.1 Environmental Setting

Visalia is served by four major regional highways: SR 63, SR 99, SR 198, and SR 216. SR 99 provides access to Fresno and Sacramento in the north and Bakersfield in the south. SR 198 is an east-west corridor, connecting the City to the Sequoia National Park entrance.[106] Due to its proximity to the Project site, SR 198 and SR 216 are the most relevant of the State Routes to the Project.

Three Arterials would aid in the circulation of traffic to the Project area: Lovers Lane/SR 216, Houston Avenue/SR 216 and Ivanhoe Drive/SR 216 (**Appendix M**). Lovers Lane exists as a four-lane, divided, 45 mph

[106] City of Visalia, 2014. General Plan Update 2030 – Chapter 4: Circulation. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30476 Pages 4-3 – 4-4. Date Accessed: 6/23/2016

roadway and does not have a bike lane. Although Lovers Lane is not directly within the Project area, its flow patterns impact the connected arterials of Houston Avenue and Ivanhoe Drive.

The GP designates the buildout of the City's circulation network in two planned time frames: Year 1-10 and Year 11-25. The GP also has a category for a deferred time frame for both arterials and collectors. The study area segment of Houston Avenue is a Year 11-25 Arterial between Lovers Lane and Road 152, as designated by the City GP (**Appendix M**). Houston Avenue segment from Lover Lane and McAuliff Street contains a bike lane and is a four-lane, 40 mph, divided roadway. The speed limit within this part of the roadway changes to 25 mph within the boundaries of the existing school zone and adjusts back to 40 mph after the school zone has been passed. The portion of the Arterial, extending from McAuliff Street to Road 152, is a two-lane, 55 mph roadway without a bike lane.

Ivanhoe Drive is also designated as a Year 11 to 25 Arterial; however, it is also designated as a minor Arterial by the County GP. Ivanhoe Drive is a two-lane, undivided, 40 mph and 50 mph roadway without bike lanes (**Appendix M**).

Five different collectors provide for internal traffic movement within communities and connect local roads to arterials: McAuliff Street, Mill Creek Parkway, Mineral King Avenue, Noble Avenue, and Road 152 (**Appendix M**). McAuliff Street extends from Mineral King and Houston Avenue as a four-lane, 45 mph, undivided roadway and a four-lane, 45 mph, divided roadway north of Houston Avenue. McAuliff Street also served as an arterial roadway. Bike lanes are present along both sides of McAuliff Street with the exception of the west side of the roadway between Willow Avenue and Mineral King Avenue (**Appendix M**).

Mill Creek Parkway is a 45 mph, two-lane divided roadway without bike lanes within the study area. Mineral King Avenue, Noble Avenue and Road 152 are two-lane, 45 mph, undivided roadways that do not have bike lanes and exist within the study area (**Appendix M**).

The City evaluates roadway traffic conditions and deficiencies by calculating a respective Level of Service (LOS).[107] California Department of Transportation (Caltrans) defines LOS as "a qualitative measure of operating conditions within a Traffic stream, and their perception by motorists and/or passengers. A LOS definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, comfort and convenience, and safety."[108] The City's Target LOS as identified by the GP for the intersections and road segments associated with the Project are shown in **Table 3-36**.

3.16.2 Methodology

A Traffic Impact Study (TIS) has been prepared by VRPA Technologies, Inc. for the purpose of analyzing traffic conditions related to the Project and is attached as **Appendix M**. When preparing a TIS, guidelines set by affected agencies are followed. In analyzing street and intersection capacities the LOS methodologies are applied. See **Table 3-36** for the GP target LOS by intersection. LOS standards are applied by transportation agencies to quantitatively assess a street and highway system performance. In addition, safety concerns are analyzed to determine the need for appropriate mitigation resulting from increased traffic near sensitive uses, the need for dedicated ingress and egress access lanes to the project, and other evaluations such as the need for signalized intersections or other improvements.

Although analysis of vehicles miles traveled (VMT) is not required, because the NOP predates the requirements of SB743, a VMT analysis has been prepared by VRPA Technologies, Inc. for the Project and is attached as **Appendix N**.

[107] City of Visalia, 2014. General Plan Update – Chapter 4: Circulation. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30476 Page 4-8. Date Accessed: 6/23/2016
[108] California Department of Transportation (Caltrans), 2016. http://www.dot.ca.gov/dist11/news/brawley/appendix/APPENDIXK.pdf Date Accessed: 6/23/2016

Study Area

The study intersections and street and highway segments included in this TIS are listed below and shown in **Figure 3-20**. The intersections listed below are listed with the number that corresponds to the intersection number in the TIS. The study area outlined below was developed in consultation with City and Caltrans staff. The Assumptions and Trip Generation document contained in **Appendix A** describes in more detail the proposed methodology for the traffic analysis.

Intersections

Existing Intersections

1. Lovers Lane / Houston Avenue (SR 216)
2. Lovers Lane / Mineral King Avenue
3. Lovers Lane / SR 198 EB Ramps
4. Lovers Lane / Noble Avenue
5. SR 198 WB Ramps / Mineral King Avenue
6. McAuliff Street / Houston Avenue (SR 216)
7. McAuliff Street / Mill Creek Parkway
8. McAuliff Street / Murray Avenue
9. McAuliff Street / Mineral King Avenue
10. Mineral King Avenue (North) / Mineral King Avenue
11. Road 152 / Houston Avenue (SR 216)
12. Road 152/ Mineral King Avenue
13. Noble Avenue / SR 198 EB Ramps
14. SR 198 WB On-Ramp / Mineral King Avenue
15. Road 156 / Mineral King Avenue
16. Road 156/ Noble Avenue
17. SR 198 WB Off-Ramp / Mineral King Avenue

Future Intersections

18. Tower Street / Houston Avenue (SR 216)
19. Tower Street / McKinley Avenue-Project Driveway #2 (also shown as A on Figure 3-21)
20. Tower Street / Douglas Avenue
21. Tower Street / Race Avenue
22. Tower Street / Murray Avenue
23. Tower Street / Villoy Avenue-Project Driveway #1 (also shown as A on Figure 3-21)
24. Tower Street / Mineral King Avenue
25. Road 152 / Project Driveway #3 (also shown as A on Figure 3-21)
26. Tower Street / SR 198 WB Ramps
27. Tower Street / SR 198 EB Ramps

Roadway Segments

Existing Roadway Segments

- Houston Avenue (SR 216)
  West of Lovers Lane
  Lovers Lane to McAuliff Street
  McAuliff Street to Road 152
  East of Road 152
- Lovers Lane

North of Houston Avenue (SR 216)
Houston Avenue (SR 216) to Mill Creek Parkway
Mill Creek Parkway to Mineral King Avenue
South of Noble Avenue

- McAuliff Street
  North of Houston Avenue (SR 216)
  Houston Avenue (SR 216) to Murray Avenue
  Murray Avenue to Mineral King Avenue
- Road 152
  South of Houston Avenue (SR 216)
  North of Mineral King Avenue
- Mineral King Avenue
  West of Lovers Lane
  Lovers Lane to McAuliff Street
  McAuliff Street to Road 152
  Road 152 to Road 156
  East of Road 156
- Road 156
  North of Mineral King Avenue
  South of Noble Avenue
- Mill Creek Parkway
  Lovers Lane to McAuliff Street
- Mineral King Avenue (North)
  North of Mineral King Avenue
- Murray Avenue
  East of McAuliff Street
- Noble Avenue
  West of Lovers Lane
  Lovers Lane to McAuliff Street
  West of Road 156
  East of Road 156
- SR 198
  Lovers Lane to Road 156

Future Roadway Segments

- Tower Street
  Houston Avenue (SR 216) to Douglas Avenue
  Douglas Avenue to Murray Avenue
  Murray Avenue to Mineral King Avenue

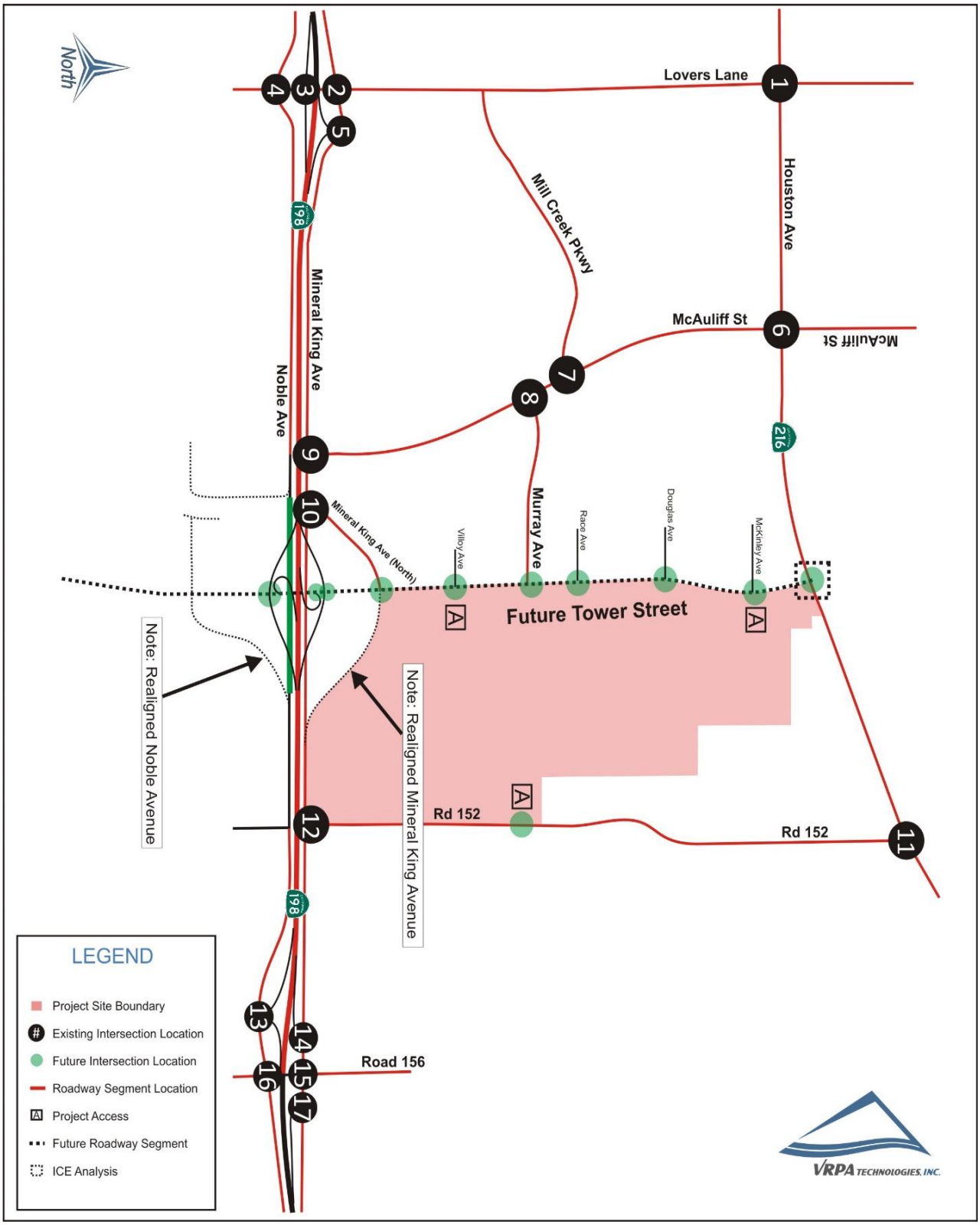

Figure 3-20. Intersections and Road Segments Studied

Table 3-36. General Plan Target LOS by Intersection

INTERSECTION	JURISDICTION	TARGET LOS[1]
1. Lovers Lane / Houston Avenue (SR 216) [2]	City of Visalia / Caltrans	D / C *
2. Lovers Lane / Mineral King Avenue [2]	City of Visalia / Caltrans	D / C *
3. Lovers Lane / SR 198 EB Ramps [2]	Caltrans	C *
4. Lovers Lane / Noble Avenue [2]	City of Visalia	D
5. SR 198 WB Ramps / Mineral King Avenue [3]	Caltrans	C *
6. McAuliff Street / Houston Avenue (SR 216) [2]	City of Visalia / Caltrans	D / C *
7. McAuliff Street / Mill Creek Parkway [3]	City of Visalia	D
8. McAuliff Street / Murray Avenue [3]	City of Visalia	D
9. McAuliff Street / Mineral King Avenue [4]	City of Visalia	D
10. Mineral King Avenue (North) / Mineral King Avenue [3]	City of Visalia	D
11. Road 152 / Houston Avenue (SR 216) [3]	Tulare County / Caltrans	D / C *
12. Road 152 / Mineral King Avenue [3]	Tulare County	D
13. Noble Avenue / SR 198 EB Ramps [3]	Caltrans	C *
14. SR 198 WB On-Ramp / Mineral King Avenue [5]	Caltrans	C *
15. Road 156 / Mineral King Avenue [2]	Tulare County	D
16. Road 156 / Noble Avenue [2]	Tulare County	D
17. SR 198 WB Off-Ramp / Mineral King Avenue [3]	Caltrans	C *

(1) Based on respective jurisdiction General Plan Standards
(2) Signalized Intersection.
(3) One-Way Stop Intersection.
(4) All-Way Stop Intersection.
(5) Uncontrolled Intersection.
* Caltrans identifies' a minimum LOS is C, except where the existing LOS is D or below

Study Scenarios

The TIS includes LOS analysis for the following traffic scenarios:

1. Existing Conditions (Baseline Condition Without Project / Without Future Interchange / With existing Mineral King Avenue
2. Existing Plus Recharge Basins Only - Trip Generation Analysis Only (Without Future Interchange / With existing Mineral King Avenue)
3. Existing Plus Project (Full Build Out) (as defined, Median Crossover/Directional Left-Turn Bays or "worm" in Tower Street at Villoy Avenue) - Concept B1 (Without Future Interchange / With existing Mineral King Avenue) (Both existing Mineral King intersections at Tower Street)

4. Near-term Opening Year Projection Without Project (Without Future Interchange / With existing Mineral King Avenue)
5. Near-term Opening Year Projection Plus Phase 1 only of the Project (as defined, Median Crossover/Directional Left-Turn Bays or "worm" in Tower at Villoy), (Without Future Interchange / With existing Mineral King Avenue) (Both existing Mineral King intersections at Tower Street)
6. 2040 Without Project (with the future year land use for the Project Site coded as already identified in the approved 2040 TCAG Traffic Model) (Without Future Interchange / With existing Mineral King Avenue) (Both existing Mineral King intersections at Tower Street)
7. 2040 Without Project (with the future year land use for the Project Site coded in the TCAG Traffic Model as agricultural use) - Analysis would consist of a Qualitative Assessment Only and, if necessary. If the Project Site is already coded in the 2040 Traffic Model as agricultural use, then this scenario would not be qualitatively assessed (Without Future Interchange / With existing Mineral King Avenue) (Both existing Mineral King intersections at Tower Street)
8. 2040 Plus Full Project (as defined, Median Crossover/Directional Left-Turn Bays or "worm" in Tower Street at Villoy Avenue) - Concept B1 (Without Future Interchange / With existing Mineral King Avenue) (Both existing Mineral King intersections at Tower Street)
9. 2040 Without Project (With Future Interchange; abandoning the Mineral King Avenue frontage east of McAuliff Avenue and west of Road 152)
10. 2040 Plus Full Project (as defined, Median Crossover/Directional Left-Turn Bays or "worm" in Tower Street at Villoy Avenue) With Future Interchange and with realigned Mineral King Avenue intersection (both legs of realigned Mineral King remain) at Tower Street (solid median)
11. 2040 Plus Full Project (as defined, Median Crossover/Directional Left-Turn Bays or "worm" in Tower Street at Villoy Avenue) With Future Interchange and with realigned Mineral King Avenue intersection (west leg of realigned Mineral King remains, east leg eliminated to Road 152) at Tower Street (solid median)
12. 2040 Plus Full Project (With Future Interchange; abandoning the Mineral King Avenue frontage east of McAuliff Avenue and west of Road 152 / With Tower Street as a full access intersection at the Park entrance but with a cul-de-sac at east end of Villoy Avenue)

Phasing

It is anticipated that the Project would be developed in three phases. Phase 1 includes development of the groundwater recharge basins and storm-water layoff facilities.. Phase 2 would include the adult softball fields, youth baseball fields, soccer fields, and ancillary facilities (maintenance yard, cricket field, basketball court, children's play area, and picnic area). Tower Street would be developed in concert with Phase 2 of the Project. Phase 3 would include the remaining development of the site which includes the community center, amphitheater, disc golf course, and recreational trails.

Trip Generation

To assess the impacts that the Project may have on the surrounding street and highway segments and intersections, an assessment of trip generation resulting from the Project was completed. Project trips are generally determined using trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition). The 9th Edition of the ITE Trip Generation Manual includes trip generation rates for a "Regional Park"; however, after reviewing descriptions of the various park-related categories in the Manual, it was considered more accurate to include separate trip generation calculations for the main components of the Project that were listed in the Manual and would be expected to be large trip generators. As such, trip generation analysis was provided for the project with the following individual land uses:

- Recharge Basin
- Adult Softball Fields, Youth Baseball Fields, and Soccer Fields
- Community Center

- Regional Park
- Special Event Traffic

Each land use analyzed under the TIS was considered based on the size of area that the use contributed to the overall Project. Special Event Traffic was separated out from the rest of the land uses and added to a separate analysis of trip generation for the site.

Trip generation is analyzed using the triAppendix Mps generated by a particular use and site by utilizing Peak Hour traffic volumes generated by the subject site. Peak Hour traffic is the busiest two hour time period that experiences the most trips to a site. Peak Hour is considered for both morning (AM) trips and afternoon (PM) trips. For this Project, the TIS defined the AM Peak Hour time as 7-9 in the morning and PM Peak Hour as 4-6 at night. In addition, the Peak Hour trip generation analysis was studied both on a weekday and on Saturday, which is considered Weekday Peak Hour and Saturday Peak Hour. The trip generation analyzed for the Project during peak hour periods allows for the evaluation of LOS on affected intersections. The evaluation of LOS at each affected intersection would indicate any potential environmental impacts result from traffic as a result of the Project. For a full discussion of the trip generation levels produced by the Project, see Appendix A of **Appendix M.**

Trip Distribution

Project trip distribution is shown in **Figure 3-21** and **Figure 3-22** and is based upon a select zone model run prepared by TCAG staff. The regional travel model was used to determine how Project trips are distributed to the surrounding roadway network. The Project trips distribution along Tower Street was manually adjusted considering the proposed lane geometry and roadway configuration.

Currently, access to the Project site is via its frontages on Mineral King Avenue, Road 152 and Houston Avenue (SR216). Primary access to the Project would be provided through the construction of Tower Street along the western border of the Project Site, together with two entrance/exits aligning with the proposed extension of Villoy Avenue and the extension of McKinley Avenue. A secondary (3rd) entrance/exit would be provided to Road 152 approximately one-half mile north of its intersection with Mineral King Avenue.

Separate from this Project, Caltrans is considering an interchange at Tower Street and SR 198, although the project is only in the planning stage and has not been officially authorized nor funding allocated for it. The interchange at Tower Street and SR 198 is not anticipated to be a constrained project in TCAG 2018 RTP. Nevertheless, this traffic analysis includes assessment of traffic impacts both with and without the interchange. **Figure 3-21** reflects the Project trip distribution without the development of an interchange at Tower Street, while **Figure 3-22** reflects the Project trip distribution with an interchange at Tower Street and SR 198.

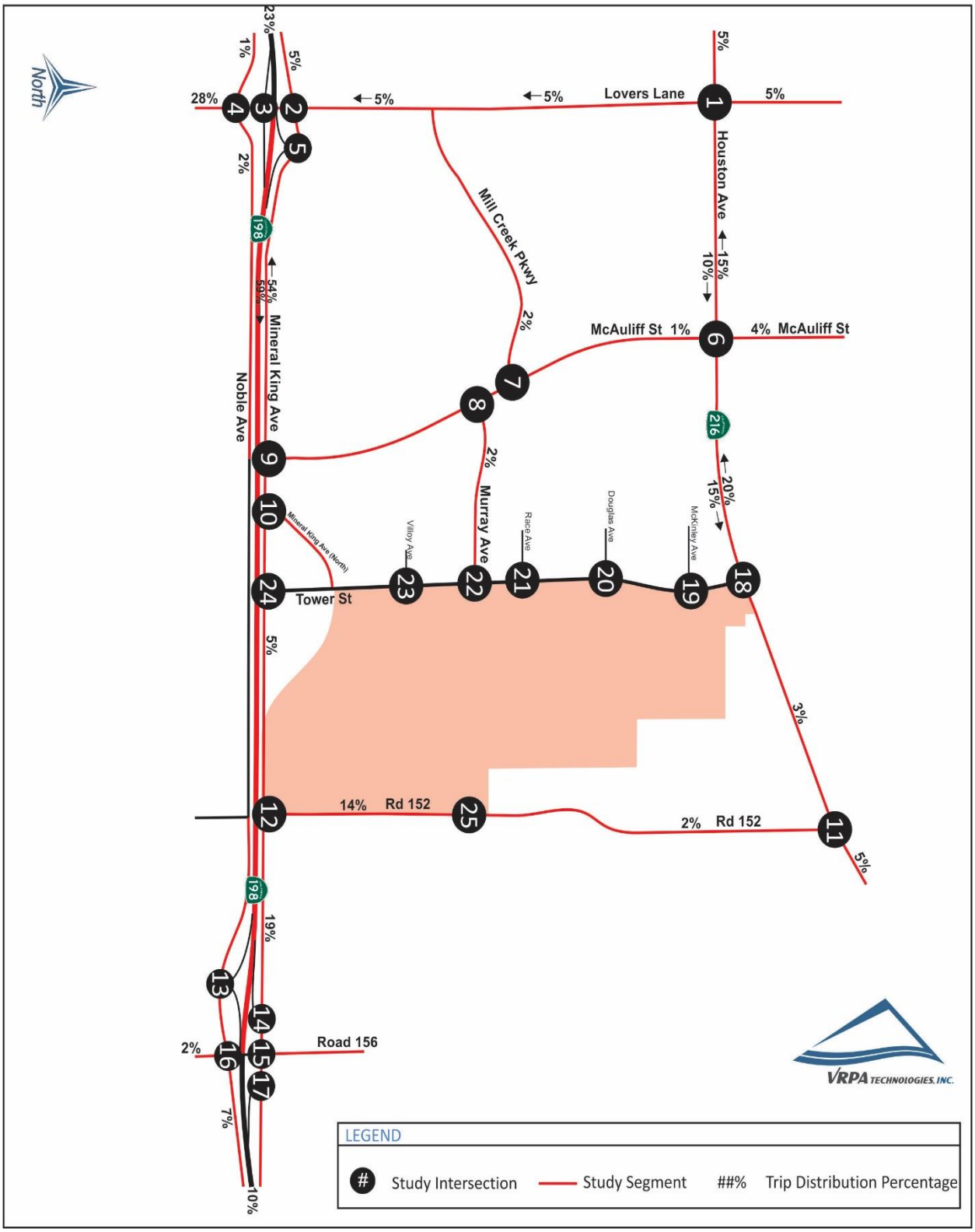

Figure 3-21. Project Peak Hour Trip Distribution without Tower Street Interchange

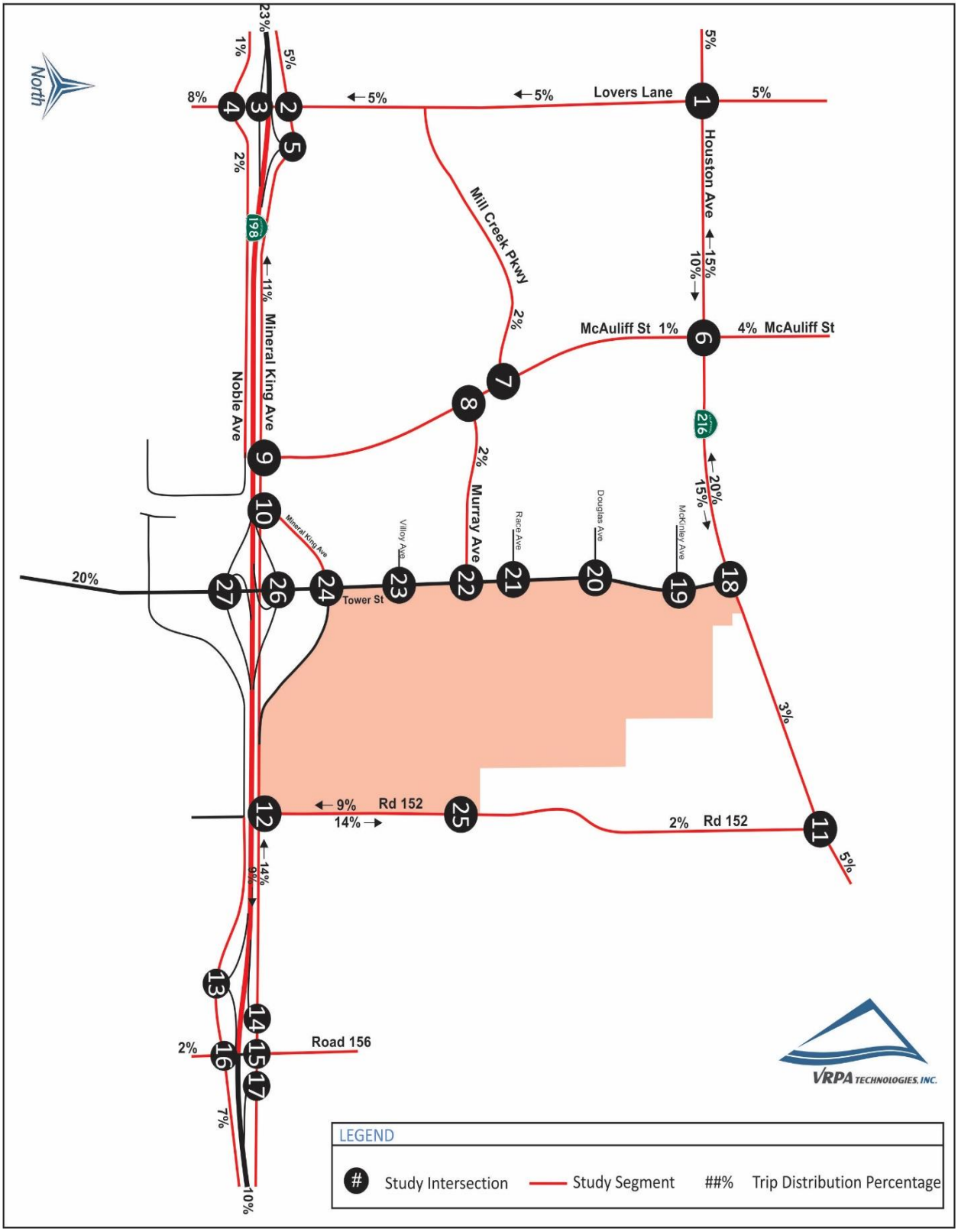

Figure 3-22. Project Peak Trip Distribution with Tower Street Interchange

3.16.3 Regulatory Setting

An important goal is to maintain acceptable levels of service along the highway, street, and road network. To accomplish this, affected agencies adopt minimum levels of service in an attempt to control congestion that may result as new development occurs. The affected LOS standards applicable to the traffic analysis are described below.

Federal

National Environmental Policy Act (NEPA)

NEPA requires federal agencies to assess the possible environmental consequences of projects that they propose to undertake, fund, or approve. It is unknown if federal funding would be used during the Project; any federally funded transportation portion of the Project requiring federal approval would be subject to a NEPA evaluation.

State

California Department of Transportation (Caltrans)

Caltrans is responsible for planning, design, construction, and maintenance of all State highways. Caltrans jurisdictional interest extends to improvements to these roadways at the interchange ramps serving area freeways. Any federally funded transportation improvements are subject to review by Caltrans staff and the California Transportation Commission.

Rather than establish regulations regarding traffic LOS on State Highway facilities, Caltrans instead uses a series of guidelines. Caltrans recommends a target LOS at the threshold between LOS C and LOS D. If the location under existing conditions operates worse than the appropriate target LOS, then the existing LOS should be maintained. On the portion of SR 198 within the Planning Area, the Caltrans concept LOS for the 20-year planning horizon (as identified in the 2012 District 6 SR 198 Corridor System Management Plan) is LOS "D". The concept facility identified to meet the year 2035 horizon concept LOS "D" for SR 198 within the Planning Area is four-lane freeway, with the ultimate design (beyond 2035) being a six-lane freeway.

For the portion of SR 99 within the Planning Area, the Caltrans concept LOS for the 20-year planning horizon (as identified in the 2003 District 6 SR 99 Transportation Concept Report) is LOS "D" ("C" north of Goshen). The concept facility identified to meet the year 2025 horizon concept LOS "D" and "C" for SR 99 within the Planning Area is six-lane freeway, with the ultimate design (beyond 2025) being an eight-lane freeway.

Local

Tulare County Association of Governments Regional Transportation Plan (RTP) 2011

The 2011 RTP for Tulare County was adopted in 2010. The plan sets priorities for funding and implementation of transportation-related projects throughout the County. This 2011 RTP update was prepared by TCAG with the assistance of its member jurisdictions. The RTP identifies performance measures and indicators for transportation projects and improvements, including transit trips, peak hour travel speed, cost of deferred street maintenance, and VMT.

The 2011 RTP identifies financially constrained projects, which are short- and long-range projects fully fundable from anticipated revenue sources. They would likely be programmed during the time horizon of the RTP (25 years). Financially unconstrained projects do not have identified funding sources but are included as desired long-term projects for the region for informational purposes. Both tiers of projects include roadway, pedestrian, bicycle, transit, and aviation modes. Locally funded roadway projects in Visalia for which funding has been identified amount to $275,975,000 in improvements and include widening of existing roadways, creation of

new roadways in growth areas, and installation of new traffic signals. Major RTP/Measure R funded projects to be undertaken by Caltrans in the Planning Area include widening of SR 99 from four to six lanes, interchange improvements along SR 99 and SR 198, and building/improving bridges over SR 198 at McAuliff and Ben Maddox.

City of Visalia General Plan

The Circulation Element of the existing GP outlines the City's standards for roadway design, improvements, and levels of service. The Circulation Element also calls for consistency and coordination of local transportation actions with State and County agencies and plans. It also considers other modes of travel and includes policies pertaining to aviation, rail, transit, and non-motorized transportation (bicycles and pedestrian).

The City GP states the City would plan for LOS "D" for street segments and intersections.

- Policy T-P-33: Work with transit operators to establish transit stops adjacent to community and regional parks, senior housing facilities, areas with a high concentration of medical facilities, major employment centers, and major retail and commercial centers.

- Policy T-P-9: Maintain acceptable levels of service for all modes and facilities, as established in General Plan Tables 4-1, Intersection Level of Service Definitions and 4-2, Level of Service Criteria for Roadway Segments.

Tulare County General Plan

The County GP states the minimum LOS is "D" for street segments and intersections.

3.16.4 Impact Assessment

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Potentially Significant Impact. The potentially significant impacts resulting from the Project relate to the generation of unacceptable LOS at various intersections and road segments both in the near term and long term, as identified in **Appendix M**. The Project would be inconsistent with what the City's GP identifies in T-P-9, considering the exceedance of levels of service. Described below are recommended improvements at study area intersections and segments for various scenarios that would in most cases mitigate the potential significant impacts to acceptable levels of service and thereby reducing the impact to less than significant. It should be noted that statements of significance for the improvements identified below are related to Project impacts. In certain scenarios, recommended mitigation would not fully mitigate significant impacts to less than significant but would reduce impacts to the extent feasible; these impacts are thus described as Significant and Unavoidable. In accordance with CEQA Guidelines Section 15091 and 15093, if the City wishes to approve the Project despite significant and unavoidable impacts, it would need to make findings and adopt a SOC.

Mitigation measures can be implemented to ease many of the impacts of the Project and projected future traffic through the year 2040. The Project would be required to contribute a fair-share towards the costs of improvements that are identified for the Cumulative Year 2040 Plus Project, Cumulative Year 2040 Plus Project with Tower Street Interchange, Cumulative Year 2040 Plus Project with Tower Street Interchange – Alternative 1, and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios. The intent of determining the equitable responsibility for the improvements identified below for the Cumulative Year 2040 Plus Project, Cumulative Year 2040 Plus Project With Tower Street Interchange, Cumulative Year 2040 Plus

Project With Tower Street Interchange – Alternative 1, and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios, is to provide a starting point for early discussions between the City and Caltrans to address traffic mitigation equitability and to calculate the equitable share for mitigating traffic impacts, in particular, for those that come about if/when Caltrans constructs the Tower Street Interchange.

Project Traffic

The TIS determined that the Project would cause or contribute to the rise of LOS to an unacceptable level at 2 of the 25 intersections analyzed within the study under the proposed Project. Tower Street would be constructed as a part of Phase 2 of the Project. Implementation of the Project without the Tower Street Interchange would result in unacceptable levels of LOS at intersections 2 and 5 during both AM and PM Peak Hours (see **Appendix M**). Inbound and outbound special event traffic from the site is not expected to have a significant impact on traffic. In addition, Saturday Peak Hour traffic is not expected to have a significant impact. The TIS also determined that the Project would cause or contribute to unacceptable LOS levels at 10 of the 25 intersections analyzed under the study through the cumulative year 2040, with construction of the Tower Street Interchange. The 10 intersections that would experience unacceptable LOS at the cumulative year 2040, with construction of the Tower Street Interchange are intersections 2, 3, 5, 9, 12, 13, 15, 16, 17, and 24. Without the Tower Street Interchange, the Project would contribute to or cause unacceptable LOS levels at 8 of 27 intersections considered under this scenario. The 8 intersections that would experience unacceptable LOS at the cumulative year 2040, without construction of the Tower Street Interchange would be intersections 2, 3, 5, 12, 13, 15, 16, and 18. AM and Peak hour traffic impacts and the data behind the LOS findings are discussed in further detail within the TIS, found within **Appendix M**.

Near-Term Traffic Conditions

Traffic conditions without the Project on Project Opening Day were estimated by applying a growth rate of 2% per year to the existing traffic volumes. The 2% growth rate was derived from model plots provided by TCAG staff and the Transportation Concept Reports (TCR) for SR 198 and SR 216. The 2% growth rate is consistent with the TCAG model plots in the study area and TCRs. The resulting traffic is shown in Figures 3-15a, 3-15b, 3-16a, 3-16b, and 3-17 of **Appendix M**. Of the 17 intersections considered under this scenario, intersection 5 was the only intersection which experienced unacceptable LOS levels.

Phase 2 Project trips were added to the forecasted Near-Term Opening Year Without Project traffic volumes to obtain Near-Term Opening Year Plus Phase 2 Project conditions. The resulting traffic is shown in Figures 3-18a, 3-18b, 3-19a, 3-19b, 3-20, and 3-21 of **Appendix M**. In this scenario, 25 intersections were analyzed and intersection 5 was the only one which experienced unacceptable LOS levels.

Near-Term Intersection Capacity Analysis

Table 3-16 of **Appendix M** shows intersections that are expected to fall short of desirable operating conditions for the Existing Plus Project scenario. Potential mitigation measures are discussed in Chapter 4 of this report. Results of the analysis show that the Project would cause or contribute to an unacceptable LOS at 2 of the 25 study intersections (Lovers Lane and Mineral King Avenue and SR 198 WB Ramps and Mineral King Avenue) for this scenario when comparing the Near-Term Opening Year Without Project and Near-Term Opening Year Plus Project scenarios.

Table 3-17 of **Appendix M** shows the intersection levels of service for study intersections along Tower Street. Results of the analysis show that all study intersections along Tower Street would meet acceptable levels of service.

Table 3-18 of **Appendix M** shows the intersection levels of service for study intersections at the Project driveways along Tower Street during the Saturday peak hour. Results of the analysis show that the Project driveways would meet acceptable levels of service.

Near-Term Roadway Segment Capacity Analysis

Table 3-19 of **Appendix M** shows roadway segment volumes and levels of service pertaining to the Near-Term scenarios. Results of the analysis show that all of the study roadway segments would meet acceptable levels of service. Table 3-20 of **Appendix M** provides the roadway segment levels of service for Tower Street, which shows that roadway segments along Tower Street would meet acceptable levels of service.

Near-Term Queuing Analysis

Tables 3-21 and 3-22 of **Appendix M** provides a queue length summary for left and right turn lanes at the study intersections for the Near-Term Opening Year Without Project and Near-Term Opening Year Plus Project scenarios. The queues shown for signalized intersections in Tables 3-21 and 3-22 of **Appendix M** represent the 95th percentile queue lengths for the respective lane movements. Queuing analysis for unsignalized intersections was completed using Section 400 of Caltrans HDM.

Near-Term Merge/Diverge Analysis

The ramp merge/diverge analysis for the SR 198 at Lovers Lane and Road 156 interchanges were based on the Highway Capacity Manual. Results of the AM and PM peak hour ramp merge/diverge analysis at the SR 198 interchanges for the Near-Term Opening Year Without Project and Near-Term Opening Year Plus Project scenarios are reflected in Tables 3-23 and 3-24 of **Appendix M** and indicate the interchanges would operate at acceptable levels of service.

3.16.5 Mitigation Measures

Existing Plus Project Mitigation Measures

Intersections

- **TR-1 – Lovers Lane at Mineral King Avenue**
    - Widen the northbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)
    - Widen the southbound approach to 2 left turn lanes and 2 through lanes with a shared right (adding 1 left turn lane)

The improvements identified above for the Existing Plus Project (Full Build Out) scenario is sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of Mitigation Measure TR-1.

- **TR-2 –SR 198 WB Ramps at Mineral King Avenue**
    - Widen the northbound approach to 1 left turn lane and 1 right turn lanes (adding 1 right turn lane)
    - Widen the eastbound approach to 1 through lane and 1 right turn lane (adding 1 right turn lane)
    - Widen the westbound approach to 1 left turn lane and 1 through lane (adding 1 left turn lane)

The intersection is forecasted to operate at unacceptable levels of service under the Existing Plus Project scenario despite the improvements recommended above. However, this intersection does not meet the peak hour traffic signal warrant because the minor approach does not carry enough traffic to justify signalization. It should be noted that the intersection operates at LOS 'F' conditions under Existing conditions. Project impacts would be considered significant and unavoidable despite the improvements identified for Mitigation Measure TR-2.

Near-Term Mitigation Measures

Intersections

- **Lovers Lane at Mineral King Avenue**
    - Mitigation Measure TR-1

The improvements identified above for the Near-Term Opening Year Without Project, and Near-Term Opening Year Plus Project scenarios are sufficient to meet Caltrans' acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-1.

- **SR 198 WB Ramps at Mineral King Avenue**
    - Mitigation Measure TR-2

The intersection is forecasted to operate at unacceptable levels of service under the Near-Term Opening Year Without Project and Near-Term Opening Year Plus Project scenarios despite the improvements recommended above. However, this intersection does not meet the peak hour traffic signal warrant because the minor approach does not carry enough traffic to justify signalization. It should be noted that the intersection operates at LOS 'F' conditions under Existing conditions. Project impacts would be considered significant and unavoidable despite the improvements identified for Mitigation Measure TR-2.

Cumulative Year 2040 Mitigation Measures

Intersections

- **TR-3 – Lovers Lane at Mineral King Avenue**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
        - Widen the northbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)
        - Widen the southbound approach to 2 left turn lanes and 2 through lanes with a shared right (adding 1 left turn lane)
        - Widen the eastbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane)
        - Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane)

The improvements identified above for the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of Mitigation Measure TR-3.

- **TR-4 – Lovers Lane at SR 198 EB Ramps**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
        - Widen the northbound approach to 2 through lanes and 1 right turn lane (adding 1 right turn lane)
        - Widen the eastbound approach to 2 left turn lanes and 1 right turn lane (adding 1 left turn lane)

The improvements identified above for the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C' in the AM peak hour. However, the intersection is forecasted to operate at unacceptable LOS 'D' in the PM peak hour, which exceeds Caltrans acceptable LOS standard of 'C'. No additional improvements are recommended given the close proximity of the existing SR-198 overpass.

Project impacts would be considered significant and unavoidable despite the improvements identified for Mitigation Measure TR-4.

- **TR-5 – SR 198 WB Ramps at Mineral King Avenue**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
        - Install Traffic Signal
        - Widen the northbound approach to 1 left turn lane and 1 right turn lanes (adding 1 right turn lane)
        - Widen the eastbound approach to 1 through lane and 1 right turn lane with overlap phasing (adding 1 right turn lane)
        - Widen the westbound approach to 1 left turn lane and 1 through lane (adding 1 left turn lane)

The improvements identified above for the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. It should be noted that the SR 198 WB Ramps at Mineral King Avenue intersection is located approximately 450 feet east of the signalized Lovers Lane at Mineral King Avenue intersection. The intersection would continue to operate at LOS 'F' conditions should Caltrans determine that this intersection cannot be signalized due to inadequate spacing. The Project impacts would be considered less than significant with incorporation of Mitigation Measure TR-5.

- **TR-6 – McAuliff Street and Mineral King Avenue**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
        - Widen the westbound approach to 1 through and 1 right turn lane (adding 1 right turn lane)

The improvements identified above for the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios are sufficient to meet the City's acceptable LOS standard of 'D'. The Project impacts would be considered less than significant with incorporation of Mitigation Measure TR-6.

- **TR-7 – Road 152 and Mineral King Avenue**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
        - Widen the southbound approach to 1 left turn and 1 right turn lane (adding 1 right turn lane)
        - Widen the eastbound approach to 1 left turn lane and 1 through lane (adding 1 left turn lane)
        - Widen the westbound approach to 1 through lane and 1 right turn lane (adding 1 right turn lane)

The intersection is forecasted to operate at unacceptable LOS 'E' in the AM peak hour under the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios despite the improvements recommended above. However, this intersection does not meet the peak hour traffic signal warrant because the minor approach does not carry enough traffic to justify signalization. The Project impacts would be considered significant and unavoidable despite the improvements identified for Mitigation Measure TR-7.

- **TR-8 – Noble Avenue and SR 198 EB Ramps**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
        - Install Traffic Signal
        - Widen the westbound approach to 1 through lane and 1 right turn lane (adding 1 right turn lane)

The improvements identified above for the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. The Project impacts would be considered less than significant with incorporation of Mitigation Measure TR-8.

- **TR-9 – Road 156 and Mineral King Avenue**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
        - Widen the northbound approach to 2 left turn lanes and 1 through lane with a shared right (adding 1 left turn lane)
        - Widen the eastbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane with overlap phasing (adding 1 right turn lane)

The improvements identified above for the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios are sufficient to meet the City's acceptable LOS standard of 'D'. The Project impacts would be considered less than significant with incorporation of Mitigation Measure TR-9.

- **TR-10 – Road 156 and Noble Avenue**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
        - Widen the northbound approach to 2 left turn lanes and 1 through lane with a shared right (adding 1 left turn lane)
        - Widen the eastbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane with overlap phasing (adding 1 right turn lane)

The improvements identified above for the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios are sufficient to meet the City's acceptable LOS standard of 'D'. The Project impacts would be considered less than significant with incorporation of Mitigation Measure TR-10.

- **TR-11 – SR 198 WB Off Ramp and Mineral King Avenue**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
        - Widen the westbound approach to 2 through lanes (adding 1 through lane)

The intersection is forecasted to operate at unacceptable LOS 'D' in the AM peak hour under the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios despite the improvements recommended above. The projected volumes at the intersection satisfy peak hour signal warrants and a traffic signal would alleviate LOS deficiencies. However, this intersection is less than 200 feet from the Road 156 and Mineral King Avenue intersection and is not recommended for signalization. Project impacts would be considered significant and unavoidable despite the improvements identified for Mitigation Measure TR-11.

Roadway Segments

- **TR-12 – Road 156**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios: South of Noble Avenue
        - Widen the segment from 2 to 4 travel lanes (adding 1 travel lane in each direction)

The improvements identified above for the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios are sufficient to meet the City's acceptable LOS standard of 'D'. The Project impacts would be considered less than significant with incorporation of MM TR-12.

SR 198 Ramp Junctions

- **TR-13 - SR 198 EB Off Ramp to Lovers Lane**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:

    - Widen the SR 198 mainline from 2 to 3 travel lanes in the eastbound movement (adding 1 travel lane)

The improvements identified above for the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-13.

- **TR-14 - SR 198 WB On Ramp from Lovers Lane**
    - Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
        - Widen the SR 198 mainline from 2 to 3 travel lanes in the westbound movement (adding 1 travel lane)

The improvements identified above for the Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-14.

Queuing

- **TR-15 - Lovers Lane and Houston Avenue (SR 216)**
    - In the southbound left-turn lane, lengthen the storage pocket from 225 feet to 300 feet.

Project impacts would be considered less than significant with incorporation of MM TR-15.

- **TR-16 - Lovers Lane and Mineral King Avenue**
    - In the northbound left-turn lane, lengthen the storage pocket from 100 feet to 325 feet.
    - In the southbound left-turn lane, lengthen the storage pocket from 175 feet to 225 feet.
    - In the westbound left-turn lane, lengthen the storage pocket from 150 feet to 325 feet.

Project impacts would be considered less than significant with incorporation of MM TR-16.

- **TR-17 - Lovers Lane and SR 198 EB Ramps**
    - In the eastbound left-turn lane, lengthen the storage pocket from 225 feet to 375 feet.

Project impacts are considered less than significant with incorporation of MM TR-17.

- **TR-18 - Lovers Lane and Noble Avenue**
    - In the eastbound left-turn lane, lengthen the storage pocket from 125 feet to 275 feet.

Project impacts would be considered less than significant with incorporation of MM TR-18.

- **TR-19 - McAuliff Street and Houston Avenue (SR 216)**
    - In the northbound left-turn lane, lengthen the storage pocket from 150 feet to 300 feet.

Project impacts would be considered less than significant with incorporation of MM TR-19.

- **TR-20 - McAuliff Street and Mineral King Avenue**
    - In the southbound right-turn lane, lengthen the storage pocket from 250 feet to 300 feet.
    - In the eastbound left-turn lane, lengthen the storage pocket from 200 feet to 275 feet.
    - In the westbound right-turn lane, provide 300-foot storage pocket.

Project impacts would be is considered less than significant with incorporation of MM TR-20.

- **TR-21 - Road 152 and Mineral King Avenue**

- In the southbound right-turn lane, provide 125-foot storage pocket.
- In the eastbound left-turn lane, provide 100-foot storage pocket.
- In the westbound right-turn lane, provide 125-foot storage pocket.

Project impacts would be considered less than significant with incorporation of MM TR-21.

- **TR-22 - SR 198 EB Ramps and Noble Avenue**
  - In the westbound right-turn lane, provide 125-foot storage pocket.

Project impacts would be considered less than significant with incorporation of MM TR-22.

- **TR-23 - Road 156 and Noble Avenue**
  - In the northbound left-turn lane, lengthen the storage pocket from 175 feet to 225 feet.
  - In the eastbound right-turn lane, provide 150-foot storage pocket.

Project impacts would be considered less than significant with incorporation of MM TR-23.

- **TR-24 - Tower Street and Houston Avenue (SR 216)**
  - In the northbound left-turn lane, provide 200-foot storage pocket.
  - In the northbound right-turn lane, provide 100-foot storage pocket.

Project impacts would be considered less than significant with incorporation of MM TR-24.

- **TR-25 - Tower Street and McKinley Avenue-Project Driveway #2**
  - In the southbound left-turn lane, provide 100-foot storage pocket.

Project impacts would be considered less than significant with incorporation of MM TR-25.

- **TR-26 - Tower Street and Race Avenue**
  - In the northbound left-turn lane, provide 100-foot storage pocket.
  - In the southbound left-turn lane, provide 100-foot storage pocket.

Project impacts would be considered less than significant with incorporation of MM TR-26.

- **TR-27 - Tower Street and Murray Avenue**
  - In the northbound left-turn lane, provide 250-foot storage pocket.
  - In the southbound right-turn lane, provide 100-foot storage pocket.

Project impacts would be considered less than significant with incorporation of MM TR-27.

- **TR-28 - Tower Street and Villoy Avenue-Project Driveway #1**
  - In the northbound left-turn lane, provide 150-foot storage pocket.
  - In the southbound left-turn lane, provide 100-foot storage pocket.

Project impacts would be considered less than significant with incorporation of MM TR-28.

- **TR-29 - Tower Street and Villoy Avenue-Project Driveway #1**
  - In the southbound left-turn lane, provide 250-foot storage pocket.
  - In the eastbound left-turn lane, provide 175-foot storage pocket.

Project impacts would be considered less than significant with incorporation of MM TR-29.

Cumulative Year 2040 With Tower Street Interchange Mitigation Measures

INTERSECTIONS

- **Lovers Lane at Mineral King Avenue**
    - Mitigation Measure TR-5

The improvements identified above for the Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-5.

- **Lovers Lane at SR 198 EB Ramps**
    - Mitigation Measure TR-6

The improvements identified above for the Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C' in the AM peak hour. However, the intersection is forecasted to operate at unacceptable LOS 'D' in the PM peak hour, which exceeds Caltrans acceptable LOS standard of 'C'. No additional improvements are recommended given the close proximity of the existing SR-198 overpass. Project impacts would be considered significant and unavoidable despite the improvements identified for MM TR-6.

- **SR 198 WB Ramps at Mineral King Avenue**
    - Mitigation Measure TR-7

The improvements identified above for the Cumulative Year 2040 Without Project With Tower Street Interchange, and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. It should be noted that the SR 198 WB Ramps at Mineral King Avenue intersection is located approximately 450 feet east of the signalized Lovers Lane at Mineral King Avenue intersection. Should Caltrans determine that this intersection cannot be signalized due to inadequate spacing, the intersection would continue to operate at LOS 'F' conditions. Project impacts would be considered less than significant with incorporation of MM TR-7.

- **Road 152 and Mineral King Avenue**
    - Mitigation Measure TR-9

The improvements identified above for the Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios are sufficient to meet the City's acceptable LOS standard of 'D'. Project impacts would be considered less than significant with incorporation of MM TR-9.

- **Noble Avenue and SR 198 EB Ramps**
    - Mitigation Measure TR-10

The improvements identified above for the Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-10.

- **Road 156 and Mineral King Avenue**
    - Mitigation Measure TR-11

The improvements identified above for the Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios are sufficient to meet the City's acceptable LOS standard of 'D'. Project impacts would be considered less than significant with incorporation of MM TR-11.

- **Road 156 and Noble Avenue**
    - Mitigation Measure TR-12

The improvements identified above for the Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios are sufficient to meet the City's acceptable LOS standard of 'D'. Project impacts would be considered less than significant with incorporation of MM TR-12.

- **TR-30 - Tower Street at Houston Avenue (SR 216)**
    - Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios:
        - Install Traffic Signal

The improvements identified above for the Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-30.

Special Event Traffic Impacts

The Project includes a large number of specialized land uses, each with their own individualized travel patterns and trip generation characteristics. Some of the activity associated with the individual uses at the Project site would be represented in the typical weekday and Saturday trip generation, while other activities could be considered special events. It is not practical to analyze traffic conditions for all of the various activities that could occur as a special event (e.g. concerts, tournaments, weddings). Instead, one design event condition was selected that would occur often enough to justify analysis of traffic conditions and consideration of impacts and mitigation, and representative of a "worst case" example. The following scenario was agreed upon to represent special event traffic for worst-case analysis purposes:

1. Amphitheater weekday evening event at full capacity (all 1,500 seats filled)
2. Typical weekday evening activity for all other park uses

The Project Driveway #1 at Tower Street would exceed acceptable levels of service for outbound traffic in the Cumulative Year 2040 Plus Project with Tower Street Interchange scenario. Traffic desiring to make the westbound right out of the Project site is anticipated to experience LOS E conditions.

- **TR-31 - Tower Street at Villoy Avenue-Project Driveway #1**
    - Cumulative Year 2040 Plus Project With Tower Street Interchange scenario:
        - Install Traffic Signal

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange scenario are sufficient to meet the City's acceptable LOS standard of 'D'. Project impacts would be considered less than significant with incorporation of MM TR-31.

Roadway Segments

- **Road 156 – South of Noble Avenue**
    - Mitigation Measure TR-14

The improvements identified above for the Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios are sufficient to meet the City's acceptable LOS standard of 'D'. Project impacts would be considered less than significant with incorporation of MM TR-14.

SR 198 Ramp Junctions

- **SR 198 EB Off Ramp to Lovers Lane**
    - Mitigation Measure TR-15

The improvements identified above for the Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-15.

- **SR 198 WB On Ramp from Lovers Lane**
    - Mitigation Measure TR-16

The improvements identified above for the Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-16.

Cumulative Year 2040 Plus Project With Tower Street Interchange Alternatives 1 and 2 Mitigation Measures

INTERSECTIONS

- **Lovers Lane at Mineral King Avenue**
    - Mitigation Measure TR-5

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1, and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts is considered less than significant with incorporation of MM TR-5.

- **Lovers Lane at SR 198 EB Ramps**
    - Mitigation Measure TR-6

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C' in the AM peak hour. However, the intersection is forecasted to operate at unacceptable LOS 'D' in the PM peak hour, which exceeds Caltrans' acceptable LOS standard of 'C'. No additional improvements are recommended given the close proximity of the existing SR-198 overpass. Project impacts would be considered significant and unavoidable despite the improvements identified for MM TR-6.

- **SR 198 WB Ramps at Mineral King Avenue**
    - Mitigation Measure TR-7

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios

are sufficient to meet Caltrans acceptable LOS standard of 'C'. It should be noted that the SR 198 WB Ramps at Mineral King Avenue intersection is located approximately 450 feet east of the signalized Lovers Lane at Mineral King Avenue intersection. The intersection would continue to operate at LOS 'F' conditions should Caltrans determine that this intersection cannot be signalized due to inadequate spacing. Project impacts would be considered less than significant with incorporation of MM TR-7.

McAuliff Street and Murray Avenue
No improvements are recommended to achieve acceptable levels of service.

This intersection is forecasted to operate at unacceptable LOS 'E' in the PM peak hour under Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 conditions; however, this intersection does not meet the peak hour traffic signal warrant because the minor approach does not carry enough traffic to justify signalization. Therefore, no improvements are recommended for the Project traffic contributions at the intersection.

The Project's impact is considered significant and unavoidable.

- **Road 152 and Mineral King Avenue**
    - Mitigation Measure TR-9

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenario are sufficient to meet the City's acceptable LOS standard of 'D'. Project impacts would be considered less than significant with incorporation of MM TR-9.

- **Noble Avenue and SR 198 EB Ramps**
    - Mitigation Measure TR-10

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-10.

- **Road 156 and Mineral King Avenue**
    - Mitigation Measure TR-11

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios are sufficient to meet the City's acceptable LOS standard of 'D'. Project impacts would be considered less than significant with incorporation of MM TR-49.

- **Road 156 and Noble Avenue**
    - Mitigation Measure TR-12

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios are sufficient to meet the City's acceptable LOS standard of 'D'. Project impacts would be considered less than significant with incorporation of MM TR-12.

- **Tower Street at Houston Avenue (SR 216)**
    - Mitigation Measure TR-31

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-31.

Special Event Traffic Impacts

As noted in Section 3.1, the Project includes a large number of specialized land uses, each with their own individualized travel patterns and trip generation characteristics. Some of the activity associated with the individual uses at the Project site would be represented in the typical weekday and Saturday trip generation, while other activities could be considered special events. It is not practical to analyze traffic conditions for all of the various activities. Instead, one design event condition was selected that would occur often enough to justify analysis of traffic conditions and consideration of impacts and mitigation. The Project Driveway #1 at Tower Street would exceed acceptable levels of service for outbound traffic in the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 scenario considering the traffic volumes shown in Figure 3-38b. Traffic desiring to make the westbound right out of the Project site is anticipated to experience LOS E conditions.

- **Tower Street at Villoy Avenue-Project Driveway #1**
    - Mitigation Measure TR-31

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 scenario are sufficient to meet the City's acceptable LOS standard of 'D'. Project impacts would be considered less than significant with incorporation of MM TR-31.

Roadway Segments

- **Road 156 – South of Noble Avenue**
    - Mitigation Measure TR-14

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios are sufficient to meet the City's acceptable LOS standard of 'D'. Project impacts would be considered less than significant with incorporation of MM TR-14.

SR 198 Ramp Junctions

- **SR 198 EB Off Ramp to Lovers Lane**
    - Mitigation Measure TR-15

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-15.

- **SR 198 WB On Ramp from Lovers Lane**
    - Mitigation Measure TR-16

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-55.

- **TR-32 - SR 198 EB On Ramp from Tower Street**
    - Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 scenario:

- Widen the SR 198 mainline from 2 to 3 travel lanes in the eastbound movement (adding 1 travel lane)

The improvements identified above for the Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 scenario are sufficient to meet Caltrans acceptable LOS standard of 'C'. Project impacts would be considered less than significant with incorporation of MM TR-32.

Equitable Fair-Share Responsibility

The Project would be required to build MM TR-1, TR-2, TR-3 and TR-4 improvements that are identified for the 'Existing Plus Project' and 'Near-Term Opening Year Plus Project' conditions to improve identified LOS deficiencies.

In addition to MM TR-1, TR-2, TR-3 and TR-4 discussed above, the Project would also be required to contribute its calculated "fair-share" towards the costs of improvements that are identified for the Cumulative Year 2040 Plus Project, Cumulative Year 2040 Plus Project With Tower Street Interchange, Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1, and Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 2 scenarios. The intent of determining the equitable responsibility for the improvements identified above for the Cumulative Year 2040 scenarios, is to provide a starting point for early discussions between the City and Caltrans to address traffic mitigation equitability and to calculate the equitable share for mitigating traffic impacts, in particular, for those that come about if/when the Tower Street Interchange is built by Caltrans. The equitable share responsibility for improvements to the City and Caltrans facilities are identified in **Appendix M**.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Potentially Significant Impact. Impacts are identified in Impact a. Mitigation measures MM TR-1 through MM TR-32 would be implemented to minimize all feasibly mitigated impacts due to exceedances of LOS standards, travel demand measures and other standards developed by the County's Congestion Process Steering Committee Congestion Management Program. Any impacts that cannot be avoided would be included in the statement of overriding consideration.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

No Impact. The nearest airport of any kind is the Exeter Airport, located 7.2 miles southeast of the Project. The next nearest airport is the Visalia Municipal Airport, located approximately 7.6 miles west of the Project. The Project does not entail commercial, residential or generate significant out-of-town tourism; therefore, there would be no impact.

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

Potentially Significant Impact. Mitigation measures MM TR-1 through MM TR-11 would be implemented to minimize impacts to intersections, including safety impacts considering anticipated exceedances of service standard. Any impacts that cannot be avoided would be included in the statement of overriding consideration.

e) Result in inadequate emergency access?

Less than Significant. The Project proposes multiple vehicular access points to the Project location. The Project would not conflict with Public Works Standards regarding street widths and turning movements.

The Project does not create new publicly-accessible rights-of-way that restrict emergency service operator access. The Project proposes to remove existing barriers, located at stub streets found at the subdivisions to the west of the Project. The Project does not propose to add a substantial number of vehicular trips located within close proximity of an emergency service operator facility which could preclude emergency service operators from entering the right-of-way. Therefore, there would be a less than significant impact.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Potentially Significant Impact. The Project would be providing additional trails for pedestrian and bicycle traffic and is isolated from a public transportation route. The City GP Circulation Element identifies in policy T-P-33 to work with transit operators to establish transit stops adjacent to regional parks. To be consistent with the City GP and the City GP Environmental Impact Report,[109] the City would be required to work with transit operators on establishing a public transportation stop within a reasonable vicinity of the regional park. Due to the lack of public transportation to the site, the City would complete a SOC.

3.16.6 Cumulative Impacts

The TIS completed by VRPA Technologies, Inc. analyzed cumulative year 2040 impacts and determined that the Project would cause or contribute to unacceptable LOS at 10 of the 25 study intersections when considering long-term impacts and would contribute to an unacceptable LOS at 8 of the 27 study intersections when analyzing long-term impacts with the Tower Street Interchange. MM TR-3 through MM TR-32 would be implemented to minimize cumulative impacts; however, as noted in impact a) above, any impacts that would not be fully mitigated to a less than significant level would require a SOC.

[109] City of Visalia Draft Environmental Impact Report. Transportation. http://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30492 Accessed 12/5/2017

3.17 Utilities and Service Systems

Table 3-37. Utilities and Service Systems

Utilities and Service Systems					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e)	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?	☐	☐	☒	☐
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

3.17.1 Environmental Setting

Potable Water

The City relies solely on groundwater for its potable water supply, which is replenished by Sierra Nevada snowmelt. This potable water supply is distributed by Cal Water through 75 operational groundwater wells, 519 miles of main pipeline, and associated appurtenances to extract, distribute, and store potable water within Cal Water's Visalia district.[110] It is anticipated that Cal Water would have sufficient pumping capacity to meet the expected increase in demand; however, the Kaweah Subbasin is considered to be in an overdraft condition on an average long-term basis and it is likely that groundwater management practices and surface water transfers or exchanges would be necessary on a long-term basis for the foreseeable future.[111]

[110] City of Visalia, 2014. General Plan Update DEIR – Chapter 3.9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/depts/community_development/planning/gp.asp Date Accessed: 6/22/2016
[111] City of Visalia, 2014. General Plan Update DEIR – Chapter 3.9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/depts/community_development/planning/gp.asp Date Accessed: 6/22/2016

The 2010 Cal Water UWMP also indicates that the sole source of water supply for the foreseeable future would be groundwater unless a reliable surface supply can be identified. The 2010 UWMP analyzed the full buildout of the City's GP and determined that there are sufficient groundwater quantities to support the buildout.[112]

Wastewater

The City owns and operates a Water Conservation Plant (WCP) that treats wastewater from the City's existing wastewater collection (i.e., sewer) system. The plant was recently upgraded to provide a treatment capacity of 22 million gallons per day (mgd), with provisions to expand to 26 mgd. The upgraded plant included conversion from secondary level treatment to advanced tertiary treatment, enabling the City to produce recycled water in conformance with Title 22 disinfected tertiary treatment standards.[113]

In 2013, this upgrade of the WCP enabled the City to enter into an agreement with TID for a long-term exchange of water supplies. The City would deliver to TID tertiary-treated recycled water from its upgraded WCP and in exchange TID would provide a portion of its CVP water supplies in certain higher-flow year types marked by what is called "Uncontrolled Season."

The City's sewer collection system facilities consist of gravity sewer pipelines ranging in size from 6" to 42", as well as 13 sewage lift stations and associated force mains. All of the pipelines within the City limits convey wastewater to the WCP.[114]

Stormwater Drainage

Historically, the City has experienced flooding from two sources. The first is major flooding resulting from runoff from within the 500-square-mile watershed of the Kaweah River. This flooding is currently controlled by Terminus Dam, which can accommodate flood events of a magnitude expected to occur on average once in fifty years. The second source of flooding, which is far less severe, occurs when local rainfall exceeds the level of protection that existing drainage facilities provide. Street and lot stormwater drainage flows, generally by gravity, through a storm drain pipeline system to the main drain system, which consists primarily of St. John's River, Modoc Ditch, Goshen Drain, Mill Creek, Evans Ditch, Packwood Creek, Cameron Creek, and Persian/Watson ditches. These creeks and ditches are used for irrigation flow conveyance as well as stormwater conveyance. In addition to the creeks and ditches, the City's stormwater is handled by a pipeline conveyance system that leads to retention and detention basins. These basins have been strategically placed and planned throughout the City to have the ability to generally handle the runoff that would be generated by the 10-year/2-day storm event, respectively.[115] It is anticipated that the City would continue to have an increased need for stormwater infrastructure for the foreseeable future.[116]

Solid Waste

Solid waste disposal is provided by the Tulare County Resource Management Agency, which operates the Visalia Landfill approximately 8 miles northwest of the Project. The facility is located at 8614 Avenue 328 and serves the cities of Visalia, Farmersville, Dinuba, Exeter, Tulare, Woodlake, Fresno, and unincorporated areas of northern Tulare County and southern Fresno County. As of 2014, the landfill had a maximum capacity of 18,630,666 cubic yards and a remaining capacity of 16,145,591 cubic yards. The landfill is not expected to reach capacity until 2024.[117] This landfill has a maximum permitted throughput of 2,000 tons per day, a maximum

[112] Ibid.
[113] City of Visalia Water Conservation Plant, Antidegradation Analysis. Provost & Pritchard Consulting Group. June 21, 2012
[114] City of Visalia. Sewer System Management Plan (SSMP). August 2012. https://www.visalia.city/sirepub/cache/3/intunpvbpi4554dbgl2fcgip/106290421201411592896 8.PDF Date Accessed: 7/30/2018
[115] City of Visalia. Storm Water Master Plan. Final Report. September 1994. https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=32394 Date Accessed: 7/30/18
[116] City of Visalia, 2014. General Plan Update DEIR – Chapter 3.9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/depts/community_development/planning/gp.asp Date Accessed: 6/22/2016
[117] City of Visalia, 2014. General Plan Update DEIR – Chapter 3.9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/depts/community_development/planning/gp.asp Date Accessed: 6/22/2016

permitted capacity of 18,630,666 cubic yards, and a remaining capacity of 16,145,591 cubic yards. The Visalia Landfill is not expected to reach capacity until 2024.[118] Solid waste collection is provided by the City and recyclable material processing is provided by Sunset Waste Systems.

Electricity

Power is provided by SCE. SCE is a subsidiary of Edison International and provides electricity to over 15 million Californians. Edison International is one of the largest electric utilities in the nation, and the nation's single largest purchaser of renewable power. The electrical facilities network includes both overhead and underground lines, with new development required to install underground service lines.[119]

Natural Gas

Natural gas service in the City is provided by the SoCalGas.

Communications

There are three major companies that provide communications services in Visalia: AT&T, Sprint, and Verizon. Comcast is the primary cable television and internet provider.[120]

3.17.2 Regulatory Setting

Federal

Clean Water Act

Refer to **Section 3.4.3 Regulatory Setting**.

Municipal Urban (Area-wide) Storm-Water Discharges

A MS4 system as defined by the EPA must obtain an NPDES permit by a certain date according to the population served by the system. Operators the stormwater system must submit an NPDES permit application and supporting information to the respective RWQCB. The CWA provides for delegating certain responsibilities for water-quality control and planning to the states. California has been authorized by the EPA to administer and enforce portions of the CWA, including the NPDES program. Section 208 of the CWA is designated to provide a comprehensive planning framework for both point- and non-point-source water pollution. Specific planning requirements include, but are not limited, to the following:

- Identification of needed treatment works to meet anticipated requirements over a 20-year period;
- Identification of construction priorities for the region; and

Procedures and methods to control non-point-source pollution emanating from agriculture, mining, and other sources. Most owners or operators of facilities that discharge waste into a municipal sanitary sewer system need to obtain an NPDES permit. The EPA, the SWRCB, and the respective RWQCB or the local wastewater management agency might require some industries to treat industrial hazardous wastes before such wastes are discharged to a municipal sanitary sewer system. The local wastewater management agency advises industries of those requirements.

[118] City of Visalia, 2014. General Plan Update DEIR – Chapter 3.9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/depts/community_development/planning/gp.asp Date Accessed: 6/22/2016
[119] Ibid.
[120] City of Visalia General Plan. Page. 5-34. https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30477. Site Accessed 7/31/2018.

State

State Water Resources Control Board – Waste Discharge Requirements Program

State regulations pertaining to the treatment, storage, processing, or disposal of solid waste are found in Title 27, CCR, Section 20005 et seq. (hereafter Title 27). In general, the WDR Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g. sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDR Program also includes the discharge of wastes classified as inert, pursuant to Section 20230 of Title 27.[121] Several programs are administered under the WDR Program, including the Sanitary Sewer Order and recycled water programs.

Department of Resources Recycling and Recovery (CalRecycle)

The Department of Resources Recycling and Recovery (CalRecycle) is the State agency designated to oversee, manage, and track wastes generated in California. In 2015, statewide disposal was 33.2 million tons of solid waste. CalRecycle develops laws and regulations to control and manage waste, for which enforcement authority is typically delegated to the local government. The board works jointly with local government to implement regulations and fund programs.

The Integrated Waste Management Act of 1989 (PRC 40000, et seq.) or AB 939, administered by CalRecycle, requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. This law set reduction targets at 25 percent by the year 1995 and 50 percent by the year 2000. To assist local jurisdictions in achieving these targets, the California Solid Waste Reuse and Recycling Access Act of 1991 requires all new developments to include adequate, accessible, and convenient areas for collecting and loading recyclable and green waste materials.

National Pollutant Discharge Elimination System Permit

As authorized by the CWA, the NPDES Permit Program controls water pollution by regulating point sources that discharge pollutants into water of the United States. In California, it is the responsibility of SWRCB and RWQCBs to preserve and enhance the quality of the States waters through the development of water quality control plans and the issuance of WDR. WDRs for discharges to surface waters also serve as NPDES permits.[122] NPDES permits also regulate the requirements of the MS4 discharges to surface waters.

California Department of Water Resources

DWR is responsible for the management and regulation of water usage in California.

Water Conservation Act of 2009 (SB X7-7)

This State legislative package mandates a 20 percent statewide reduction of urban per capita water use by the year 2020. Its provisions require urban water suppliers to adopt reduction targets according to baseline water use determinations, and agricultural water suppliers to prepare agricultural water management plans. Following SB X7-7, urban water management plans must include baseline water use and reduction targets, and report on target compliance. In addition to adopting agricultural water management plans, agricultural water suppliers must measure the volume of water delivered according to methodology adopted by DWR and adopt specified

[121] California State Water Resources Control Board. Land Disposal Program, General Information, Waste Discharge Requirements Program. http://www.swrcb.ca.gov/water_issues/programs/land_disposal/waste_discharge_requirements.shtml Date Accessed: 7/6/2016
[122] California State Water Resources Control Board. NPDES. http://www.waterboards.ca.gov/water_issues/programs/npdes/ Date Accessed: 7/6/2016

efficient water management practices. Non-compliance would be penalized by disqualification for State water grants and loans. Failure to meet targets after the 2020 deadline would be considered a violation of the law.

State Water Quality Certification Program

The RWQCBs also facilitates the State Water Quality Certification Program or Section 401 Certification of the CWA. Under Section 401, states have the authority to review any permit or license that would result in a discharge or disruption to wetlands and other waters under state jurisdiction, to ensure that the actions would be consistent with the state water quality requirements. This program is most often associated with the CWA Section 404, which obligates the USACE to issue permits for the movement of dredge and fill material into and from the "waters of the United States." Additionally, Section 404 requires permits for activities affecting wetlands. Prospective alterations of hydrologic features such as wetlands, rivers, and ephemeral creek beds resulting from construction require Section 404 NWP.

Construction Stormwater NPDES Permit

Refer to **Section 3.9.2 Regulatory Setting**.

Phase II MS4 Permit

Refer to **Section 3.9.2 Regulatory Setting**.

Central Valley Regional Water Quality Control Board

The primary responsibility for the protection of water quality in California rests with the SWRCB and nine RWQCB. The SWRCB sets statewide policy for the implementation of state and federal laws and regulations. The RWQCBs adopt and implement Water Quality Control Plans (Basin Plans) which recognize regional differences in natural water quality, actual and potential beneficial uses, and water quality problems associated with human activities.

The City is located within the jurisdiction of the Central Valley RWQCB in an area identified as the Tulare Lake Basin, which comprises the drainage area of the San Joaquin Valley south of the San Joaquin River. This basin consists of approximately 10.5 million acres, and includes the metropolitan areas of Bakersfield, Fresno, Porterville, Hanford, Tulare, and Visalia.[123] The Regional Board has set water quality objectives for both surface and ground water, which it achieves through an implementation plan. The RWQCB efforts emphasize the importance of controlling toxic discharges and address ground water salinity, which is identified as the greatest long-term problem facing the basin.[124]

The Regional Board identifies the elimination of groundwater overdraft as an important tool to use to combat the increasing salinity of the basin, as continued overdraft would deplete good quality water supplies and introduce salts from poorer quality aquifers. Groundwater recharge is recommended as a major mechanism to prevent further groundwater overdraft.[125]

Local

City of Visalia General Plan

- Objective PSCU-O-14: Provide for long-range community water needs by adopting best management practices for water use, conservation, groundwater recharge and wastewater and stormwater management.

[123] Central Valley Regional Water Quality Control Board. 2015. Water Quality Control Plan for the Tulare Lake Basin: Second Edition. http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/tlbp.pdf Date Accessed: 6/22/2016
[124] Ibid.
[125] Ibid.

- Objective PSCU-O-15: Preserve groundwater resources.
- Policy PSCU-P-47: Adopt and implement a Water Efficient Landscaping Ordinance for new and/or refurbished development that exceeds mandated sizes, and ensure that all new City parks streetscapes, and landscaped areas conform to the Ordinance's requirements. The Ordinance should include provisions to optimize outdoor water use by:
    - Promoting appropriate use of plants and landscaping;
    - Establishing limitations on use of turf including size of turf areas and use of cool-season turf such as Fescue grasses, with exceptions for specified uses (e.g., recreation playing fields, golf courses, and parks);
    - Establishing water budgets and penalties for exceeding them;
    - Requiring automatic irrigation systems and schedules, including controllers that incorporate weather-based or other self-adjusting technology;
    - Promoting the use of recycled water; and
    - Minimizing overspray and runoff.

City of Visalia Municipal Code

- City of Visalia Water Conservation Ordinance
  The City's Water Conservation Ordinance was adopted in 1989 and can be found in Chapter 13.20 of the Municipal Code. The Ordinance sets regulations to minimize outdoor water use and reduce unnecessary consumption of potable water. It defines and places restriction on wasteful uses of water and establishes water conservation alert stages to be enacted during periods of water shortage.
- The Visalia Municipal Code contains regulations related to solid waste and recycling in Chapter 8.28. The City, in order to promote and protect the public and refuse worker health and safety and to reduce the danger and hazards of fires and conflagrations, reserves unto itself the exclusive right and power to collect, transport, and dispose of, or to authorize, regulate, permit and control said collections, transportation and disposition of all refuse and rubble produced or found within the corporate limits of said city.
- The Visalia Municipal Code contains regulations related to solid waste and recycling in Chapter 8.29. The purpose of this chapter is to increase the recycling and reuse of construction and demolition debris, consistent with the goals of the California Integrated Waste Management Act of 1989.

3.17.3 Impact Assessment

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less than Significant Impact. The WCP, located about one mile southwest of the intersection of SR99 and SR 198, recently underwent extensive upgrades. Prior to the upgrades, the WCP was discharging approximately 13 million gallons per day (mgd) of effluent under WDRs from the RWQCB to City-owned holding basins and Mill Creek. The reason for the extensive upgrades to the WCP was for conversion from secondary level treatment to advanced tertiary treatment to comply with RWQCB waste discharge requirements. This resulted in the issuance of an updated WDR Order for the WCP. The tertiary-treated recycled water is planned for use by nearly 10,000 acres of farmland within the City and TID and for the City's Valley Oak Golf Course and Plaza Park. The design capacity and permit capacity of the recent upgrade is 22 mgd with provisions to expand

to 26 mgd.[126] These upgrades to the WCP can accommodate the anticipated wastewater discharge from the full buildout of the City's recently adopted GP land uses and the Project changes to those land uses, and therefore, the Project would not exceed the parameters of the existing WDR. The impact would be less than significant.

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant Impact. The Project site is not currently served by a municipal water or wastewater infrastructure. The Project would require the extension of water and wastewater service lines from adjacent streets and is not anticipated to place any significant demand on the City's wastewater treatment facilities or Cal Water's domestic water system; therefore, the impact would be less than significant.

c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant Impact. The Project would involve the realignment of existing storm water drainage facilities in street adjacent to the Project and other minor improvements to Mill Creek and Packwood Creek, which are identified as main drains within the City's stormwater drainage system. Currently the site drains via runoff into Mill Creek, Packwood Creek, and Oakes Ditch. The Project would maintain the runoff to these waterways and the proposed groundwater recharge basins. The basins would serve a dual function as stormwater layoff basins, which would control and limit potential impacts from seasonal floods; therefore the impact would be less than significant.

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less than Significant Impact. The recreational facilities, including splash pads and areas that require irrigation, would require the use of water throughout construction and operation. This potable water would be provided by Cal Water or through the drilling of a new well. Water consumption would vary between 588 and 622 acre-feet per year, depending on the amount of rainfall received in a given year. The City is located in an area that is currently in conditions of groundwater overdraft, therefore water conservation is extremely important. The groundwater recharge basins, however, would ensure that the Project would have a net positive impact on water supplies given that they would also be used to receive surface waters that normally would not be recharged. The Project is designed to recharge surface water that is available from Mill Creek, Oakes Ditch and Packwood Creek. An agreement has been made with the TID for long-term exchange of water supplies. The City would deliver treated effluent to TID from its WCP on the west side of town and in exchange TID would provide a portion of its Central Valley Project water supplies in certain higher flow year types marked by what is called "Uncontrolled Season" that would be available for delivery into the Project. Therefore, no net loss of water supplies would result from the Project and the impacts would be less than significant.

e) Would the project 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?

Less than Significant Impact. As stated under Impact b, the Project is not expected to result in a significant increase in wastewater. The recent upgrade of the City's WCP would ensure that capacity for wastewater

[126] City of Visalia, Water Conservation Plant Upgrades Project, Recirculated Draft Environmental Impact Report. October 2012. Page vii – Executive Summary of the Antidegradation Analysis prepared by Provost & Pritchard Consulting Group, June 21, 2012. http://www.visalia.city/civicax/filebank/blobdload.aspx?blobid=15729 Date Accessed: 12/4/2017

treatment continues to exceed the growth in supply that would occur in conjunction with the City's anticipated growth.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less than Significant Impact. The Project is anticipated to generate approximately 125 tons [or 832 cubic yards] of solid waste per year as a result of participants in recreational activities and events. As of 2014, the landfill that would serve the Project, the Visalia Landfill, had a maximum capacity of 18,630,666 cubic yards and a remaining capacity of 16,145,591 cubic yards. The landfill is not expected to reach capacity until 2024.[127]

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Less than Significant Impact. Solid waste would be collected from the proposed facilities and transported to the Visalia Disposal Site, in compliance with all federal, State, and local statutes and regulations.

3.17.4 Cumulative Impacts

Less than Significant Impact. The Project site is adjacent to the City's eastern boundary. Utility and service providers include the City for wastewater collection and treatment, stormwater drainage, and solid waste collection; Tulare County for solid waste disposal; Cal Water for domestic water service; SCE for electricity, SoCalGas for natural gas, and a variety of communications companies. The expansion of these utilities would occur in a methodical manner to serve each phase of the Project. Future projects would be required to assess their individual project impacts to ensure that each service provider has the sufficient supply to meet the demand. Therefore, there would be no cumulative impacts.

[127] City of Visalia, 2014. General Plan Update DEIR – Chapter 3.9: Public Services, Facilities, and Utilities. http://www.ci.visalia.ca.us/depts/community_development/planning/gp.asp Date Accessed: 6/22/2016

4 Analysis of the Alternatives

4.1 Introduction

CEQA mandates that this EIR identifies and analyzes a range of alternatives to the proposed East Side Regional Park & Groundwater Recharge Project. The purpose of the alternatives analysis is to foster informed decision-making and public participation; therefore, each alternative is included on the basis of its ability to help decision-makers make a reasoned choice. To this end, the range of alternatives considered in this document needs only include "those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects" (CEQA Guidelines Section 15126.6(d)(2)) of the Project, and which are held to a "rule of reason." CEQA defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" (CEQA Guidelines Section 15364). The discussion must also include an evaluation of the No Project Alternative to allow decision-makers to compare the impacts of approving the proposed East Side Regional Park & Groundwater Recharge Project against the effects of not approving it.

CEQA Guidelines do not specify what constitutes an adequate level of detail, but they do require that the EIR provides sufficient information to allow meaningful evaluation, analysis, and comparison of each alternative. The EIR must therefore describe the major characteristics and significant environmental effects of the Project as proposed. Quantified information on the alternatives is presented where available; however, in some cases only partial quantification can be provided because of data or analytical limitations.

Finally, the CEQA Guidelines require each EIR to identify the environmentally superior alternative among the alternatives analyzed. If the No Project Alternative is the environmentally superior alternative, the EIR must select another alternative from among the alternatives analyzed.

4.2 Alternatives to be Analyzed

The alternatives considered here were developed through and rejected as a result of public scoping meetings and neighborhood comments. Alternatives 1 was proposed as a cost-saving measure, whereas Alternative 2 was proposed due to the potential nighttime illumination caused by the proposed sports lighting. This chapter describes and evaluates three alternatives to the proposed East Side Regional Park & Groundwater Recharge Project. The alternatives are referred to as:

- Alternative 1 – This Alternative was rejected but warrants consideration regardless.
- Alternative 2 – This Alternative was rejected but warrants consideration regardless.
- No Project Alternative, which represents the impacts that would result from the continuation of existing conditions.

4.2.1 Alternative 1

Alternative 1 is largely similar to the Project. It would include the extension of Tower Street, improvements to Houston Avenue and Road 152, a GP amendment to change the planned land use to Park/Recreation, rezoning to QP, and annexation of the northern portion to the City. Additionally, the main components would still be a regional park and groundwater recharge basins covering the same footprint as the Project. Notable differences consist mainly of the location of park facilities within the Project site . While the recharge basins would remain in the same location, the main street and parking within the park would be located adjacent to Tower Street, rather than running within the park's center. An additional access point from Tower Street and additional

parking would be constructed. There would also be changes in the location of fields, the amphitheater, the community center, and other facilities.

Figure 4-1. Alternative 1 Conceptual Site Plan

4.2.2 Alternative 2

Alternative 2 is identical to the Project except for the removal of the sports lighting. Accordingly, the following recreational activity fields described in the Project Description under **Section 2.3.2**, Regional Park Amenities, would not be lighted:

- Four (4) fenced adult softball fields
- Four (4) fences youth baseball fields
- Five (5) full-size soccer fields
- Tennis courts
- Pickleball courts
- Full basketball court
- Amphitheater
- Outdoor swimming pools

Park hours would be limited to 7 am to 6 pm. Consequently, the amenities listed above would not be available for rent for activities after 6 pm.

4.2.3 No Project Alternative

The No Project Alternative represents the continuation of current conditions. The City would not construct a new regional park in the northeast quadrant, nor would it develop the proposed groundwater recharge and stormwater layoff basins. The extension of Tower Street would not take place, no improvements would be made to Road 152, no GP amendment would be passed, the land would not be annexed from the County, and it would not be subject to rezoning.

4.2.4 Project

The Project emerged from a series of Community Workshops, as well as from input from City staff. A full description of the Project can be found in Chapter Two.

4.3 Comparative Impact Analysis of Alternatives

The comparative impact analysis evaluates the impacts that each alternative would have on the environmental issue areas discussed in Chapter Three. Alternatives are compared to one another and to the proposed East Side Regional Park & Groundwater Recharge Project, and impacts are assessed relative to baseline conditions. The assessment uses the same significance criteria applied to the Project in Chapter Three.

4.3.1 Aesthetics

Alternative 1 – Considered but Rejected

Aesthetics under Alternative 1 would be largely similar to the Project, given that the regional park would retain the same visual character and would still require the removal of the mature pecan and walnut orchards. Scenic vistas would not be adversely affected, and scenic resources would not be damaged.

A notable difference would be an increased proximity of the main road and parking lots to the residences to the west of the proposed park. This would result in increased visibility of parking facilities that are less visually attractive than the vegetation that would be visible under the Project. While this would not necessarily result in a significant impact to the visual character of the site, it would be slightly greater than the impacts posed by the Project.

This alternative would also lead to a slight increase in nighttime lighting from the west, which would be necessary for the parking lot and road. Again, while this would not constitute a significant impact it would still exceed the impacts associated with the Project.

Alternative 2 – Considered but Rejected

Impacts to aesthetics under Alternative 2 would be less than the Project, due to the lack of sports lighting, resulting in less glare and nighttime lighting. The remaining lighting proposed would be along Tower road and would pose a less than significant impact.

The regional park would retain the same visual character as the Project and would still require the removal of the mature pecan and walnut orchards. Scenic vistas would not be adversely affected and scenic resources would not be damaged.

No Project Alternative

Under the No Project Alternative, the Project site would continue to be used primarily for agriculture. The existing scenic vistas and resources, which are predominantly agricultural, would persist. The visual character of the site would not be altered. No new lighting or glare would result, as the No Project Alternative would not involve the installation of any facilities that require lighting. There would be no impacts to aesthetic resources.

4.3.2 Agriculture and Forestry Resources

Alternative 1 – Considered but Rejected

Impacts to agriculture and forestry resources under Alternative 1 would be equivalent to the Project. The same amount of farmland would be converted. Additionally, Alternative 1 would involve an equivalent level of groundwater recharge, similarly leading to an increased sustainability of agricultural efforts.

Alternative 1 would be located within the QP zone; therefore, it would not conflict with existing zoning for an agricultural or forest uses. There are no Williamson Act contracted parcels or forest lands within the site. Although farmland would be converted, Alternative 1 would not result in any further conversion of agricultural lands in comparison to the proposed Project.

Alternative 2 – Considered but Rejected

Impacts to agriculture and forestry resources under Alternative 2 would be equivalent to the Project. The same amount of farmland would be converted. Additionally, Alternative 2 would involve an equivalent level of groundwater recharge, similarly leading to an increased sustainability of agricultural efforts.

Alternative 2 would be located within the QP zone; therefore, it would not conflict with existing zoning for an agricultural or forest uses. There are no Williamson Act contracted parcels or forest lands within the proposed site. Although farmland would be converted, Alternative 2 would not result in any further conversion of agricultural lands in comparison to the proposed Project.

No Project Alternative

The No Project Alternative would not have a significant impact on agriculture and forestry resources as it would not involve the conversion and rezoning of farmland to recreational uses. No forests are present within the boundaries of the Project area to result in forest conversion impacts.

4.3.3 Air Quality

Alternative 1 – Considered but Rejected

Air Quality Impacts under Alternative 1 would be largely similar to the Project, given that the regional park would retain the same features and uses. The uses and features would just be placed in different locations on the site. This place of features and uses would not result in a significant impact and would be phased similarly to not exceed air quality thresholds.

Alternative 2 – Considered but Rejected

Air Quality Impacts under Alternative 2 would be slightly less than the Project, given the smaller amount of equipment to install, fewer hours of daily activity at the Project site, and the electricity needed to power the sports lighting. Alternative 2 would not result in a significant impact and would be phased similarly as to not exceed air quality thresholds.

No Project Alternative

The No Project Alternative would result in no impact. The Project site would not undergo construction, which is the primary source of air quality concern for the Project. Therefore, the No Project Alternative would not conflict with or obstruct implementation of any applicable AQPs, violate any air quality standards, expose sensitive receptors to air pollution, create objectionable odors or result in a cumulative net increase of any criteria pollutant.

4.3.4 Biological Resources

Alternative 1 – Considered but Rejected

Impacts to biological resources under Alternative 1 would be equivalent to the Project. The same amount of land would be utilized for the construction of Alternative 1, converting marginal habitat for resident species, including special status species, such as the burrowing owl, Swainson's hawk, San Joaquin kit fox, and American badger.

Although habitat would be converted, Alternative 1 would not result in any further loss of potential habitat.

Alternative 2 – Considered but Rejected

Impacts to biological resources under Alternative 2 would be equivalent to the Project. The same amount of land would be utilized for the construction of Alternative 2, converting marginal habitat for resident species, including special status species, such as the burrowing owl, Swainson's hawk, San Joaquin kit fox, and American badger.

Although habitat would be converted, Alternative 2 would not result in any further loss of potential habitat.

No Project Alternative

No biological resources would be impacted by the implementation of the No Project Alternative. With a lack of land conversion and construction at the Project site, no biological resources currently available would be compromised. As a result of no land conversion taking place, no habitats, jurisdictional waters, native or migratory wildlife would be impacted. Therefore, there would be no conflicts with any local, regional, State, or federal policies.

4.3.5 Cultural Resources

Alternative 1 – Considered but Rejected

Impacts to cultural resources under Alternative 1 would be equivalent to the Project. The same amount of land would be utilized to construct Alternative 1. Like the Project, Alternative 1 would have to comply with all federal, State, and local regulations pertaining to cultural resources. Construction and operation of the rejected alternative would result in equivalent impacts to cultural resources.

Alternative 2 – Considered but Rejected

Impacts to cultural resources would be equivalent to the Project under Alternative 2. The same amount of land would be utilized to construct Alternative 2. Like the Project, Alternative 2 would have to comply with all federal, State, and local regulations. Construction and operation of the rejected alternative would result in equivalent impacts to cultural resources.

No Project Alternative

Under the No Project Alternative, cultural resources currently available within the Project site would not be removed, altered, or compromised. The lack of construction would also prevent the opportunity to disturb human remains.

4.3.6 Geology and Soils

Alternative 1 – Considered but Rejected

Impacts to geology and soils under Alternative 1 would be equivalent to those posed by the Project given that construction of Alternative 1 would occur in the same footprint and include the same components as the Project, it is subject to the same minimal risks of seismic ground shaking, seismic-related ground failure, including liquefaction, and landslides.

Construction and operation of the rejected alternative would result in equivalent risk of erosion; the generally flat terrain of the location indicates that this risk is less than significant. Implementation of the City's required site review and grading plan requirements, as can be seen in Policy OSC-P-25,[128] would ensure that impacts remain less than significant.

Like the Project, there are no geologic landforms that could create a risk of landslide, and destabilization of natural or constructed slopes is unlikely to occur. As there are no expansive soils located under the proposed site, no risks to life or property are posed. Alternative 1 does not involve a septic tank or alternative sewer system; therefore, no impacts would be posed by any soil incapability of supporting such components.

Alternative 2 – Considered but Rejected

Impacts to geology and soils under Alternative 2 would be the same as those posed by the Project given that construction of Alternative 2 would occur in the same footprint, but with fewer above-ground appurtenances as the Project, it is subject to the same minimal risks of seismic ground shaking, seismic-related ground failure, including liquefaction, and landslides.

Construction and operation of the rejected alternative would result in equivalent risk of erosion; the generally flat terrain of the location indicates that this risk is less than significant. Implementation of the City's required

[128] City of Visalia, 2014. General Plan Update 2030 – Chapter 6: Open Space and Conservation. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30478 Date Accessed: 7/15/2016

site review and grading plan requirements, as can be seen in Policy OSC-P-25[129], would ensure that impacts remain less than significant.

Like the Project, there are no geologic landforms that could create a risk of landslide, and destabilization of natural or constructed slopes is unlikely to occur. As there are no expansive soils located under the proposed site, no risks to life or property are posed. Alternative 2 does not involve a septic tank or alternative sewer system; therefore, no impacts would be posed by any soil incapability of supporting such components.

No Project Alternative

The No Project Alternative would result in no construction; therefore, no ground disturbance would take place that could provide opportunities for structural damage or soil erosion. The No Project Alternative would not result in impacts related to geology and soils.

4.3.7 Greenhouse Gas Emissions

Alternative 1 – Considered but Rejected

Since it contains the same project components as the Project, Alternative 1 would generate an equivalent amount of GHG emissions from short-term construction and long-term operations, but those emissions fall short of resulting in a significant effect on the environment.

Alternative 2 – Considered but Rejected

Alternative 2 would result in no sports lighting and thus less construction activity and less electricity usage. Fewer GHG emissions from short-term construction and long-term operations would be generated than the Project. Accordingly, this alternative would not generate a significant amount of greenhouse gas emissions either directly or indirectly that may have a significant effect on the environment.

No Project Alternative

Under the No Project Alternative, there would be no construction or operations that would result in any GHG emissions. There would be no impact.

4.3.8 Hazards and Hazardous Materials

Alternative 1 – Considered but Rejected

Similarly to the Project, construction of Alternative 1 would involve the transport and use of small amounts of hazardous materials, such as fuel. Implementation of required BMPs would reduce any impacts to a less than a significant level. The site is not located on a hazardous materials site, is not located within any airport safety zones or influence areas and is not located within the vicinity of a private airstrip. Construction and operation would not obstruct any adopted emergency response or evacuation plans, nor would it result in exposure to risk related to wildland fires.

Alternative 2 – Considered but Rejected

Similarly to the Project, construction of Alternative 2 would involve the transport and use of small amounts of hazardous materials, such as fuel. Implementation of required BMPs would reduce any impacts to a less than a significant level. The site is not located on a hazardous materials site, is not located within any airport safety zones or influence areas and is not located within the vicinity of a private airstrip. Construction and operation

[129] City of Visalia, 2014. General Plan Update 2030 – Chapter 6: Open Space and Conservation. http://www.ci.visalia.ca.us/civicax/filebank/blobdload.aspx?BlobID=30478 Date Accessed: 7/15/2016

would not obstruct any adopted emergency response or evacuation plans, nor would it result in exposure to risk related to wildland fires. The absence of sports lighting would not lessen nor exacerbate impacts.

No Project Alternative

The Project No Project Alternative would result in no significant contribution of hazards or hazardous materials. The land is currently being used for agriculture and residential use; therefore, the wastes produced by both are endemic to their respective activities. Diesel fuel would be present within the agricultural boundaries, considering the farm equipment present. The current conditions of the Project site do not create significant hazards to the public or environment or expose individuals to a significant risk of wildland fires. The area is not located within a hazardous materials site or located within a significantly close distance to an airstrip or airport land. The current layout of the Project area does not impair or interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the No Project Alternative would not result in hazardous materials or hazard impacts.

4.3.9 Hydrology and Water Quality

Alternative 1 – Considered but Rejected

Implementation of Alternative 1 would result in similar changes in existing drainage patterns, both in the short-term due to erosion and sedimentation during construction activities and in the long term based upon necessary recontouring of the site to establish recharge basins, external and internal roadways and parking areas and other sports fields and activity areas. Construction activities undertaken to implement the ultimate build-out of the Alternative could include excavation, soil stockpiling, boring, and/or grading activities that strip existing vegetation. Water quality impairments could also include turbidity, increased algal growth, oxygen depletion, or sediment buildup, thereby degrading aquatic habitats. Alternative 1 could also give a slight beneficial impact to the flood risk in the area.

As with the Project the impact to hydrology and water quality would be less than significant.

Alternative 2 – Considered but Rejected

Implementation of Alternative 2 would result in the same drainage patterns, both in the short-term due to erosion and sedimentation during construction activities and in the long term based upon necessary recontouring of the site to establish recharge basins, external and internal roadways and parking areas and other sports fields and activity areas. Construction activities undertaken to implement the ultimate build-out of the Alternative could include excavation, soil stockpiling, boring, and/or grading activities that strip existing vegetation. Water quality impairments could also include turbidity, increased algal growth, oxygen depletion, or sediment buildup, thereby degrading aquatic habitats. As with the Project, the impact to hydrology and water quality would be less than significant.

No Project Alternative

Under the No Project Alternative, the hydrology of the Project area would not be altered. However, the lack of development of recharge facilities under the No Project Alternative would result in no additional groundwater recharge. Considering the No Project Alternative would not require any construction or additional development, no water quality standards or waste discharge requirements would be violated. Although a current segment of the Project area is being utilized for agriculture, thus depleting groundwater, the impacts are not on a large enough scale to be significant. No rechanneling or alteration of the existing drainage would occur under the No Project Alternative. The lack of modification to the land under the No Project Alternative provides that no significant runoff would occur as a result of its implementation. No structures would be developed; thus, there would be no significant risk for the No Project Alternative to create houses and structures that could lead to flood damage. Overall, the lack of action under the No Project Alternative would not expose people or

structures to risk, result in potential inundation, or negatively impact the water quality or hydrology of the Project area and surrounding environment.

4.3.10 Land Use and Planning

Alternative 1 – Considered but Rejected

Implementation of Alternative 1 would involve the same components relevant to land use and planning as the Project. The location would be identical, therefore avoiding the division of an existing community. The GP Amendment included in both the Project and the rejected alternative would ensure that the planned land use for the site is Parks/Recreation, under which the Project is allowed. The proposed QP zoning of the site is consistent with the proposed use, avoiding conflict with the City's zoning ordinance. There are no applicable habitat conservation plans or natural community plans within the vicinity of the site, therefore there would not be an impact.

Alternative 2 – Considered but Rejected

Implementation of Alternative 2 would involve the same components relevant to land use and planning as the Project. The location would be identical, therefore avoiding the division of an existing community. The GP Amendment included in both the Project and the rejected alternative would ensure that the planned land use for the site is Parks/Recreation, under which the Project is allowed. The proposed QP zoning of the site is consistent with the proposed use, avoiding conflict with the City's zoning ordinance. There are no applicable habitat conservation plans or natural community plans within the vicinity of the site, therefore there would not be an impact.

No Project Alternative

The No Project Alternative would not result in changes in land use and planning. No physical divide would occur within the established community and there would not be a conflict with any applicable land use plan, policy, or regulation intending to uphold environmental stewardship or with any applicable habitat conservation plan or natural community conservation plan. The No Project Alternative would not result in any impacts related to land use and planning.

4.3.11 Mineral Resources

Alternative 1 – Considered but Rejected

As with the Project, construction of Alternative 1 would involve the placement of park facilities within an MRZ-3a zone. However, no component of construction or operation of the alternative would result in the removal of the resource from the site, and resource mining would remain feasible in the future through compliance with local, State, and federal legislation and permitting. Therefore, resource availability would not be reduced as a result of Alternative 1.

Alternative 2 – Considered but Rejected

As with the Project, construction of Alternative 2 would involve the placement of park facilities within an MRZ-3a zone. However, no component of construction or operation of the alternative would result in the removal of the resource from the site, and resource mining would remain feasible in the future through compliance with local, State, and federal legislation and permitting. Therefore, resource availability would not be reduced as a result of Alternative 2.

No Project Alternative

Considering the lack of excavation currently within the Project site, the No Project Alternative would not result in the loss of a known mineral, despite the presence of an MRZ-3a zone within the Project area. Any important mineral resources would not be removed; thus, they would not be made unavailable. The No Project Alternative would not result in any significant impacts regarding mineral resources.

4.3.12 **Noise**

Alternative 1 – Considered but Rejected

Alternative 1 would place the internal access road on the west side of the park. This could potentially increase the traffic noise to the residential properties located on the west side of the proposed Tower Street alignment. Implementation of this alternative would require similar construction activities as the Project. Activities involved in construction would generate maximum noise levels ranging from 77 to 85 dB at a distance of 50 feet. Construction activities would be temporary in nature and are expected to occur during normal daytime working hours in compliance with the City Noise Ordinance.

As with the Project, without mitigation, the expected noise levels of the park would exceed the City's noise standards. Implementation of mitigation measures MM Noise 2, MM Noise 3, and MM Noise 4 would reduce potential noise impacts to a less than significant level.

Alternative 2 – Considered but Rejected

Alternative 2 would be developed in a similar manner to the Project, with the only difference being the removal of field and court lighting. Construction and transportation noise impacts would be minimally lower. Traffic noise would be similar to the Project, although it would be limited to daylight hours. Stationary noise impacts would be less than significant with similar mitigation that matches the Alternative 2 operating schedule.

No Project Alternative

The current sources of noise within the Project area are related to agricultural equipment and any noises particular to residential settings. The No Action Alternative would not involve construction of operation of recreational facilities, resulting in a static level of noise pollution. The No Project Alternative would not result in any noise impacts.

4.3.13 **Population and Housing**

Alternative 1 – Considered but Rejected

Given that Alternative 1 contains the same components as the Project, it would have the same level of impact on population and housing concerns. The facilities constructed under Alternative 1 are intended to address expected growth rather than induce it. No housing or people would be displaced.

Alternative 2 – Considered but Rejected

Given that Alternative 2 contains the same components as the Project, it would have the same level of impact on population and housing concerns. The facilities constructed under Alternative 2 are intended to address expected growth rather than induce it. No housing or people would be displaced.

No Project Alternative

The No Project Alternative would not result in the further development or population growth directly or indirectly within the Project area. No new businesses, homes, or extended infrastructure would be constructed

and no displacement of existing housing or individuals would occur. There would be no impacts associated with population and housing.

4.3.14 Public Services

Alternative 1 – Considered but Rejected

Alternative 1, like the Project, would not affect service ratios for public services. It would provide different access points for police and fire; however, the impacts would be similar compared to the Project.

Alternative 1 would not pose an impact to either schools, parks, or other public facilities. As is the case in the Project, Alternative 1 would reduce dependence on existing parks, thereby improving the City's recreational facilities.

Alternative 2 – Considered but Rejected

Alternative 2, like the Project, would not affect service ratios for fire and police protection, nor to schools or other public facilities. Alternative 2 would not fulfill GP Policy PSCU-P-15 because it does not include lighted facilities. While this does not itself constitute an impact, as the City's population grows, additional opportunity for evening recreation would be needed, thus requiring additional parks which may have a significant impact on the environment.

No Project Alternative

Under the No Action Alternative, there would not be a need for new or physically altered government facilities in order to maintain adequate service ratios, response times, or other performance objectives for public services. No road or structural construction would occur under; therefore, there would be no effects to of fire and police protection routes. There would be no additional need for schools, parks or other public facilities. Therefore, there are no impacts to public services.

4.3.15 Recreation

Alternative 1 – Considered but Rejected

Implementation of Alternative 1 would decrease the use of existing parks and recreational facilities throughout the City. By nature of the project it would include the construction of recreational facilities that might have an adverse physical effect on the environment. As described in this Section 4.3, the impacts are similar to those of the Project. Impacts to recreational facilities would remain less than significant.

Alternative 2 – Considered but Rejected

Implementation of Alternative 2 would decrease the use of existing parks and recreational facilities throughout the City, although to a lesser degree due to the lack of opportunity to use the sports fields in the evening. While this does not itself constitute an impact, as the City's population grows, additional opportunity for evening recreation would be needed, thus requiring additional parks which may have a significant impact on the environment.

No Project Alternative

Under the No Project Alternative, no regional park would be developed. Therefore, with the increased population growth that the City GP expects, the need for recreational space would increase. The existing regional parks would experience increased usage without the East Side Park developments, consequently promoting physical deterioration of the facilities. The No Project Alternative would require the expansion or

construction of recreational facilities elsewhere to fulfill the needs of the growing population. The No Project Alternative would result in potentially significant impacts regarding recreation.

4.3.16 Transportation

Alternative 1 – Considered but Rejected

Given that Alternative 1 contains the same components and would facilitate the same activities as the Project, it would result in the same increase in traffic. Although this alternative would still be required to mitigate traffic impacts to the extent feasible, impacts at some intersections and road segments would remain significant and unavoidable.

Alternative 2 – Considered but Rejected

Given that Alternative 2 contains the same components as the Project but activities would be limited to daylight hours only, impacts to transportation are expected to be somewhat less traffic. Although this alternative would still be required to mitigate traffic impacts to the extent feasible, impacts at some intersections and road segments would remain significant and unavoidable.

No Project Alternative

The No Project Alternative would result in no construction of transportation routes or facilities that would alter current traffic circulation. Accordingly, the No Project Alternative would not conflict with an applicable plan, ordinance, or policy intended to protect the effectiveness of traffic circulation; no changes in transportation routes would occur; emergency access points and routes would not be affected; and there would be no conflict with any pedestrian, public transport, or bicycle policies, plans, or programs.

4.3.17 Utilities and Service Systems

Alternative 1 – Considered but Rejected

Implementation of Alternative 1 would have identical impacts to utilities and service systems as the Project. Regardless of the layout of the park, identical sewer facilities would be constructed, and the same amount of waste would be generated. Given that the City has recently upgraded its WCP, any waste that would be created by Alternative 1 would be accommodated by the upgraded WCP consistent with the current WDR. Therefore, wastewater treatment requirements would not be exceeded and it would not be necessary to construct any new water or wastewater treatment facilities or storm water drainage facilities aside from the inclusion of stormwater runoff basins as a project component, which would manage storm water runoff from the Project site.

Alternative 2 – Considered but Rejected

Implementation of Alternative 2 would have similar impacts to utilities and service systems as the Project. Regardless of the installation of sports lighting, identical sewer facilities would be constructed, but less amount of waste would be generated. Given that the City has recently upgraded its WCP, any waste that would be created by Alternative 2 would be accommodated by the upgraded WCP consistent with the current WDR. Therefore, wastewater treatment requirements would not be exceeded and it would not be necessary to construct any new water or wastewater treatment facilities or storm water drainage facilities aside from the inclusion of stormwater runoff basins as a project component, which would manage storm water runoff from the Project site.

No Project Alternative

The No Project Alternative would not result in construction of infrastructure or facilities. Therefore, no additional wastewater would be generated and no water, wastewater treatment, or storm water drainage facilities

would need to be developed or expanded. No additional waste that would impact landfill capacity would be generated. The No Project Alternative would ultimately result in no impacts to utilities and service systems.

4.4 Alternative Determination

CEQA Guidelines require the identification of an environmentally superior alternative among the alternatives analyzed in an EIR. The Guidelines also require that if the No Project alternative is identified as the environmentally superior alternative, then another environmentally superior alternative must be identified. **Table 4-1** provides, in summary format, a comparison of the level of impacts for each alternative to the Project. The Project has the least impact to the environment because it would result in fewer impacts to public services and recreation standards.

Table 4-1. Comparison of the Environmental Impacts of the Project and the Project Alternatives

Comparison of the Environmental Impacts of the Project and the Project Alternatives				
Environmental Topic	**Project Level of Impact After Mitigation**	**Alternative 1: Edge-Located Access Road**	**Alternative 2: No Sports Lighting**	**No Project Alternative**
Aesthetics	Less than Significant	Similar +	Similar -	Fewer
Agriculture and Forestry Resources	Significant and Unavoidable	Similar	Similar	Fewer
Air Quality	Less than Significant	Similar	Similar -	Fewer
Biological Resources	Less than Significant	Similar	Similar	Fewer
Cultural Resources	Less than Significant	Similar	Similar	Fewer
Geology and Soils	Less than Significant	Similar	Similar	Fewer
Greenhouse Gas Emissions	Less than Significant	Similar	Fewer	Fewer
Hazards and Hazardous Materials	Less than Significant	Similar	Similar	Fewer
Hydrology and Water Quality	Less than Significant	Similar	Similar	Fewer
Land Use and Planning	Less than Significant	Similar	Similar	Fewer
Mineral Resources	Less than Significant	Similar	Similar	Fewer
Noise	Less than Significant	Similar +	Similar -	Fewer
Population and Housing	No Impact	Similar	Similar	Similar
Public Services	No Impact	Greater	Greater	Similar
Recreation	Less than Significant	Similar	Greater	Fewer
Transportation	Significant and Unavoidable	Similar	Similar -	Fewer
Utilities and Service Systems	Less than Significant	Similar	Similar	Fewer
Attainment of Project Objectives	Meets all of the Project Objectives	Meets all Project Objectives, but to a lesser level	Meets all Project Objectives, but to a lesser level	Does Not Meet Project Objectives

Greater = Greater Impacts than the Project
Fewer = Fewer Impacts than the Project
Similar = Similar Impacts than the Project
Similar - = Similar, although incrementally fewer impacts as compared to the Project
Similar + = Similar, although incrementally greater impacts as compared to the Project

5 Other Mandatory CEQA Sections

This section discusses additional topics required by CEQA to be discussed in an EIR. The topics discussed include significant and unavoidable environmental impacts and growth-inducing impacts.

5.1 Organizations and Persons Consulted

5.1.1 Agencies

See **Appendix A**.

5.1.2 Other Persons

The City noticed all residents within 300 feet of the Project. See Appendix A.

5.1.3 List of Preparers

Rick Darnley, Project Manager

Dawn E. Marple, Principal Planner

Amy Wilson, Associate Planner

Kaitlin Palys, Assistant Environmental Specialist

Mary E. Beatie, Senior Planner Emeritus

Randy Hopkins, PE, Recharge Basin Engineer

Richard Moss, PE, Water Rights Specialist

Matt Klinchuch, PE, Project Engineer

Jason Thomas, GIS Specialist

Jackie Lancaster, Project Administrator

Jarred Olsen, AICP, Associate Planner

Jeffrey O'Neal, AICP, Senior Planner

Ryan McKelvey, Assistant Planner

Dena Giacomini, Senior Planner/Biologist

5.1.4 Subconsultants

VRPA Technologies, Inc., Air Quality, Greenhouse Gas, Noise, and Transportation

Live Oak Associates, Inc., Biological Resources

Applied Earthworks, Inc., Cultural Resources

Technicon Engineering Services, Inc., Geotechnical Investigation Report

5.2 Significant and Unavoidable Environmental Effects

CEQA Guidelines Section 15126.2(b) requires that an EIR discusses unavoidable significant environmental effects, including those that can be mitigated but not to a level of less than significance.

CEQA Guidelines Section 15093(a) allows the decision-making agency to determine if the benefits of a Project outweigh the unavoidable adverse environmental impacts of implementing the project. The City can approve a project with unavoidable adverse impacts if it prepares a "SOC" setting forth the specific reasons for making such a judgment. A list of unavoidable adverse impacts identified in this EIR is provided below.

Table 5-1. List of Significant and Unavoidable Impacts

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Agricultural and Forestry Resources			
Impact II-a. The City of Visalia foresaw the necessary conversion of farmland when adopting the 2030 General Plan Update. The EIR prepared in conjunction with the General Plan Update concluded that there would be significant and unavoidable impacts concerning the conversion of farmland. In certifying the EIR, the City Council adopted Resolution No. 2014-37, which contained a Statement of Overriding Considerations declaring that the significant loss of agriculture was outweighed by the benefits that would result from its conversion, and that there were no feasible mitigation measures that could reduce the impact to a less than significant level. The General Plan designates narrow strips (i.e. buffers) that parallel and abut Mill Creek and Packwood Creek as Conservation; however, the overall Project site is designated as Parks/Recreation. Development of the site for recreational and other uses was addressed by the General Plan and the associated EIR and determined to be significant and unavoidable and a Statement of Overriding Considerations was adopted, no further analysis is required (Guidelines Section 15152(d)(1)).	Potentially Significant Impact	None feasible.	Significant and Unavoidable

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Transportation/Traffic			
Impact XVI-a. The potentially significant impacts resulting from the Project relate to the generation of unacceptable LOS at various intersections and road segments both in the near term and long term. The Project will be inconsistent with City of Visalia General Plan identifies in T-P-9, considering the exceedance of levels of service. Described below are recommended improvements at study area intersections and segments for various scenarios that would in most cases mitigate the potential significant impacts to acceptable levels of service and thereby reducing the impact to less than significant. It should be noted that statements of significance for the improvements identified below are related to Project impacts.	Potentially Significant Impact	TR-1, TR-2, TR-3, TR-4, TR-5, TR-6, TR-7, TR-8, TR-9, TR-10, TR-11, TR-12, TR-13, TR-14, TR-15, TR-16, TR-17, TR-18, TR-19, TR-20, TR-21, TR-22, TR-23, TR-24, TR-25, TR-26, TR-27, TR-28, TR-29, TR-30, TR-31, TR-32	Significant and Unavoidable
Impact XVI-b. Impacts are identified in Impact XVI-a. Mitigation measures MM TR-1 through MM TR-56 will be implemented to minimize all feasibly mitigated impacts due to exceedances of level of service standards, travel demand measures and other standards developed by the County Congestion Process Steering Committee's Congestion Management Program	Potentially Significant Impact	TR-1, TR-2, TR-3, TR-4, TR-5, TR-6, TR-7, TR-8, TR-9, TR-10, TR-11, TR-12, TR-13, TR-14, TR-15, TR-16, TR-17, TR-18, TR-19, TR-20, TR-21, TR-22, TR-23, TR-24, TR-25, TR-26, TR-27, TR-28, TR-29, TR-30, TR-31, TR-32	Significant and Unavoidable
Impact XVI-f. The Project will be providing additional trails for pedestrian and bicycle traffic and is isolated from a public transportation route. The City of Visalia General Plans Circulation Element identifies in policy T-P-33 to work with transit operators to establish transit stops adjacent to regional parks. To be consistent with the City of Visalia General Plan and the City of Visalia General Plan Environmental Impact Report, the City will be required to work with transit operators on establishing a public transportation stop within a reasonable vicinity of the regional park.	Potentially Significant Impact	TR-1, TR-2, TR-3, TR-4, TR-5, TR-6, TR-7, TR-8, TR-9, TR-10, TR-11, TR-12, TR-13, TR-14, TR-15, TR-16, TR-17, TR-18, TR-19, TR-20, TR-21, TR-22, TR-23, TR-24, TR-25, TR-26, TR-27, TR-28, TR-29, TR-30, TR-31, TR-32	Significant and Unavoidable

5.3 Growth Inducement

CEQA Guidelines Section 15126(d) states the following regarding evaluation in the EIR of growth-inducing impact of the Project.

> Growth-Inducing Impact of the Project. *Discuss the ways in which the Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.*

5.3.1 Growth Inducement Potential

The City proposes to design and construct the East Side Regional Park and Groundwater Recharge Project (Project). The intent of the Project is to co-locate city-wide/regional park amenities (for both passive and active recreational uses) amongst functional groundwater recharge and storm water layoff basins. It is anticipated that the Project will allocate acreage fairly equally for park and recharge/storm water facility purposes. As discussed in impact XV-a, the construction of park facilities will not result in residential development or induce growth. The Project would increase the number and available acreage of recreational facilities, thus lessening the need for additional recreational facilities elsewhere that could lead to potential environmental impacts. The City of Visalia General Plan outlines the need for a regional park in the eastern portion of the City, which the Project will satisfy.[130]

The Project will reduce the need for additional recreational facilities, will not result in residential development, and meets the expectations of the City's General Plan. The Project is intended to accommodate the anticipated increase in need for recreational facilities that is appurtenant to population growth, but it will not itself include growth . Impacts would be less than significant.

[130] City of Visalia, 2014. General Plan Update – Chapter 5: Parks, Schools, Community Facilities, and Utilities. http://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30477 Page 5-10. Date Accessed: 6/22/2016

6 Mitigation Monitoring and Reporting Program

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings in Chapter 3 – Impact Analysis of this EIR. The MMRP lists mitigation measures recommended for the Project and identifies monitoring and reporting requirements and responsible parties.

Table 6-1 presents the mitigation measures identified for the Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, BIO-1 would be the first mitigation measure identified in the Biological Resources analysis of the EIR.

The first column of **Table 6-1** identifies the mitigation measure. The second column, entitled "When Monitoring is to Occur," identifies the time the mitigation measure should be initiated. The third column, "Frequency of Monitoring," identifies the frequency of which the monitoring of the mitigation measure should occur. The fourth column, "Agency Responsible for Monitoring," names the party responsible for ensuring that the mitigation measure is properly implemented. The last columns will be used by the City of Visalia (City) as a check-off tool to ensure that and when individual mitigation measures have been complied with and monitored.

Table 6-1. Mitigation and Monitoring Reporting Program

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
Biological Resources					
BIO – 1a: (WEAP Training)					
• Prior to initiating construction activities (including staging and mobilization), all personnel associated with Project construction shall attend mandatory Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to aid workers in identifying special status resources that may occur in the Project area. • The specifics of this program shall include identification of the sensitive species and suitable habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. • This training will specifically discuss the conservation status of the California condor, in addition to all other special status species, describe the laws and regulations in place to provide protection of these species, identify the penalties for violation of applicable environmental laws and regulations, and a list of required protective measures to avoid "take." • A fact sheet conveying this information, along with photographs or illustrations of sensitive species with potential to occur on-site, shall also be prepared for distribution to all contractors, their employees, and all other personnel involved with construction of the Project.	Prior to initiating construction activities	Once	City of Visalia	Submittal of WEAP training attendance form	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
• All employees shall sign a form documenting that they have attended WEAP training and understand the information presented to them.					
BIO – 2: (Construction Operational Hours)					
• Construction shall be conducted during daylight hours to reduce disturbance to wildlife that could be foraging within work areas.	During construction activities	Continuously	City of Visalia	Permit condition	
BIO – 3: Best Management Practices (BMPs)					
• The Project proponent will ensure that all workers employ the following best management practices (BMPs) in order to avoid and minimize potential impacts to special status species:			City of Visalia		
BIO – 3a: Best Management Practices (BMPs)					
• Vehicles shall observe a 15-mph speed limit while on unpaved access routes.	During construction activities	Continuously	City of Visalia	Signs posted	
BIO – 3b: Best Management Practices (BMPs)					
• Workers shall inspect areas beneath parked vehicles prior to mobilization. If special status species are detected beneath vehicles, the individual will either be allowed to leave of its own volition or will be captured by the qualified biologist (must possess appropriate collecting/handling permits) and relocated out of harm's way to the nearest suitable habitat beyond the influence of the Project work area. • "Take" of listed (rare, threatened, or endangered) is prohibited. If a listed species	During construction activities	Continuously	City of Visalia	Permit condition	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
is observed within the Project area, the biologist will stop work and contact the appropriate regulatory agency (CDFW and/or USFWS) for guidance on how to proceed.					
BIO – 3c: Best Management Practices (BMPs)					
• The presence of any special status species and/or any wildlife mortalities will be reported to the Project's designated biologist and the appropriate regulatory agencies (CDFW, USFWS, etc.).	When special status species and/or any wildlife mortalities are present	Continuously	City of Visalia	Submittal of report to City of Visalia	
BIO – 4: Avoidance					
• The Project construction activities shall occur, if feasible, between September 1 and January 31 (outside of nesting bird season) in an effort to avoid impacts to listed species.	During construction planning	Once	City of Visalia	Issuance of Building Permit	
BIO – 5: Pre-Construction Survey					
• A qualified biologist shall conduct pre-construction surveys specific to the following species: Swainson's hawk, white-tailed kite, tricolored blackbird, northern harrier, burrowing owl, loggerhead shrike, palled bat, western mastiff bat, and American badger.			City of Visalia		

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
BIO – 5a: Nesting Birds					
• If activities must occur within nesting bird season (February 1 to August 31), the survey shall include the proposed work area and surrounding lands within 500 feet. • If no active nests are observed, no further mitigation is required. • Raptor nests are considered "active" upon the nest-building stage. • All other nests are considered "active" by the presence of eggs or young.	If construction activities occur between February 1 and August 31	Once	City of Visalia	Submittal of preconstruction survey report	
BIO – 5b: Animal Species					
• A pre-construction survey of Project areas within 30 days prior to vegetation clearing or ground disturbing activities. • Environmentally sensitive areas will be flagged for avoidance. • If suitable habitat for regionally occurring special status species are detected upon pre-construction surveys, construction monitoring will be required.	Within 30 days prior to vegetation clearing or ground disturbing activities	Once, when construction commences and recommences	City of Visalia	Submittal of preconstruction survey report	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
BIO – 6: Establish Buffers					
• On discovery of any active nests or listed species near work areas, the biologist shall determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question. • Construction buffers shall be identified with flagging, fencing, or other easily visible means, and shall be maintained until the biologist has determined that the nestlings have fledged, or construction has finished in that area.	On discovery of any active nests or listed species near work areas	Continuously, until construction is complete	City of Visalia	Submittal of preconstruction survey report	
BIO – 7: Monitor					
• A qualified biologist will conduct a pre-activity clearance survey each day and remain on-site to oversee all vegetation clearing and ground disturbing activities conducted within suitable habitat for special status species that were identified in the pre-construction surveys (BIO 5 a-b). • The biological monitor must possess required collecting/handling permits. • If a special status species is observed within Project areas, the biologist will stop work order and the individual will either be allowed to leave of its own volition or will be captured by the qualified biologist and relocated out of harm's way to the nearest suitable habitat beyond the influence of the Project work area.	During construction activities	Continuously, until construction is complete	City of Visalia	Submittal of preconstruction survey report	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
• "Take" of listed (rare, threatened, or endangered) is prohibited. • If a listed species is observed within the Project area, the biologist will stop work and contact the appropriate regulatory agency (CDFW and/or USFWS) for guidance on how to proceed.					
BIO – 8: (Mitigation Fees or Replacement Planting)					
• Should avoidance of valley oak trees not be possible, the City will comply with the permitting requirements of the Oak Tree Preservation Ordinance and will mitigate the loss consistent with the provisions of the Oak Tree Mitigation Policy.	If avoidance of valley oak trees is not possible	Continuously, until construction is complete	City of Visalia	Permit conditions of Oak Tree Preservation Ordinance	
CULTURAL RESOURCES					
CR-1					
• If, in the course of project construction or operation, any archaeological or historical resources are uncovered, discovered, or otherwise detected or observed, activities within one hundred (100) feet of the find shall be ceased and the City of Visalia shall be notified immediately. The project proponent shall retain a qualified archaeologist to assess the significance of the find and make mitigation recommendations, if warranted. The archaeologist shall document the resources using DPR 523 forms and file said forms with the California Historical Resources Information System (CHRIS). The resources	During project construction or operation	Continuously	City of Visalia	Submittal of DPR 523 form	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
shall be photo-documented and collected by the archaeologist for submittal. The archaeologist shall be required to submit to the County for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken.					
CR-2					
• Prior to the issuance of grading permits, a Paleontological Resource Impact Mitigation Program (PRIMP) will be prepared by a qualified professional paleontologist who meets the SVP (2010) standards for Project Paleontologist because of the likelihood of vertebrate fossils. The PRIMP will utilize the results of the paleontological technical memo refined by the results of geotechnical borings to specify the steps to be taken to mitigate impacts to paleontological resources.	If human remains are uncovered or discovered	Continuously	City of Visalia		

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
CR-3					
• A Paleontological Resources - Worker Environmental Awareness Program (WEAP) training will be prepared prior to the start of Project-related ground disturbance and presented in person to all on-site construction personnel to inform them of the types of fossils that may be found and the procedures to follow if any are encountered.	Prior to any ground disturbance/construction activity	Continuously	City of Visalia		
CR-4					
• If human remains are uncovered, or in any other case where human remains are discovered, the Tulare County Coroner is to be notified to arrange their proper treatment and disposition. If the remains are identified – on the basis of archaeological context, age, cultural associations, or biological traits – as those of a Native American, California Health and Safety Code 7050.5 and Public Resources Code 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC will then identify the Most Likely Descendent who will be afforded an opportunity to make recommendations regarding the manner in which the remains are treated.	If human remains are uncovered or discovered	Continuously	City of Visalia	Notification of County Coroner and NAHC	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
NOISE					
NOI-1					
• Use of softball, baseball, and soccer fields shall be limited to the hours of 7:00 am – 7:00 pm.	Once Phase 2 is operational	Continuously	City of Visalia	Permit condition	
NOI-2					
• Construction of an 8-foot sound wall along residential boundary of homes directly to the west of Project site (see Figure 3-19 for approximate location). • The sound wall material should consist of concrete block (8 in. x 8 in. x 16 in.), dense concrete (4 in. thick), or light concrete (4 in. to 6 in. thick). • The wall shall provide breaks to allow for flood waters to pass through.	Prior to construction of Phase 2 Prior to construction of Phase 3 if NOI-3 is not selected.	Once	City of Visalia	Issuance of final inspection	
NOI-3					
• Reorient the amphitheater to the northeast. Grade the amphitheater stage to be at same grade or level than the sensitive receptors to the west.	Prior to construction of Phase 3 and NOI-2 is not selected	Once	City of Visalia	Approval of site plan modification	
NOI-4					
• Vibration Monitoring will be conducted during construction of Phases 1, 2, and 3 of the Project when directly adjacent to a sensitive receptor (at Project boundary). • Vibration will be monitored along the perimeter of the construction area and at varying distances.	During project construction when adjacent to sensitive receptor	Continuously	City of Visalia	Submittal of tabulated analysis	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
• A vibration criterion of 0.5 inches per second (in/sec) peak particle velocity (PPV) is proposed as the applicable action threshold criteria for ground-borne vibration measurement during proposed remedial construction activities. • The 0.5 in/sec PPV criterion has been established by the United States Bureau of Mines as the threshold above which damage to interior plaster walls may occur. • This criterion has become recognized by industry as the threshold for the onset of vibration damage to typical residential structures. Collected vibration monitoring results will be compared to the vibration criterion. • The results will also be tabulated and reviewed on a weekly basis to assess trends and formulate the basis for mitigation measures, if required.					
Traffic					
TR-1 – Lovers Lane at Mineral King Avenue					
• Widen the northbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane) • Widen the southbound approach to 2 left turn lanes and 2 through lanes with a shared right (adding 1 left turn lane)	Prior to operation of Phase 2	Once	City of Visalia	Completion of mitigation measure	
TR-2 –SR 198 WB Ramps at Mineral King Avenue					

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
• Widen the northbound approach to 1 left turn lane and 1 right turn lanes (adding 1 right turn lane) • Widen the eastbound approach to 1 through lane and 1 right turn lane (adding 1 right turn lane) • Widen the westbound approach to 1 left turn lane and 1 through lane (adding 1 left turn lane)	Prior to operation of Phase 2	Once	City of Visalia	Completion of mitigation measure	
Cumulative Year 2040 Mitigation Measures					
TR – 3 – Lovers Lane at Mineral King Avenue					

• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
  • Widen the northbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)
  • Widen the southbound approach to 2 left turn lanes and 2 through lanes with a shared right (adding 1 left turn lane)
  • Widen the eastbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane)
  • Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane)
	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	

TR – 4 – Lovers Lane at SR 198 EB Ramps					

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**

• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
  • Widen the northbound approach to 2 through lanes and 1 right turn lane (adding 1 right turn lane)
  • Widen the eastbound approach to 2 left turn lanes and 1 right turn lane (adding 1 left turn lane)
	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	

TR-5 – SR 198 WB Ramps at Mineral King Avenue					

• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
  • Install Traffic Signal
  • Widen the northbound approach to 1 left turn lane and 1 right turn lanes (adding 1 right turn lane)
  • Widen the eastbound approach to 1 through lane and 1 right turn lane with overlap phasing (adding 1 right turn lane)
  • Widen the westbound approach to 1 left turn lane and 1 through lane (adding 1 left turn lane)
	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	

TR -6 – McAuliff Street and Mineral King Avenue					
• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios: • Widen the westbound approach to 1 through and 1 right turn lane (adding 1 right turn lane)	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
TR-7 – Road 152 and Mineral King Avenue					

• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
  • Widen the southbound approach to 1 left turn and 1 right turn lane (adding 1 right turn lane)
  • Widen the eastbound approach to 1 left turn lane and 1 through lane (adding 1 left turn lane)
  • Widen the westbound approach to 1 through lane and 1 right turn lane (adding 1 right turn lane)
	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	

TR -8 – Noble Avenue and SR 198 EB Ramps					

• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
  • Install Traffic Signal
  • Widen the westbound approach to 1 through lane and 1 right turn lane (adding 1 right turn lane)
	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	

TR-9 – Road 156 and Mineral King Avenue					

• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
  • Widen the northbound approach to 2 left turn lanes and 1 through lane with a shared right (adding 1 left turn lane)
  • Widen the eastbound approach to 1 left turn lane, 1 through lane, and 1 right
	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
turn lane with overlap phasing (adding 1 right turn lane)					
TR-10 – Road 156 and Noble Avenue					

• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios:
  • Widen the northbound approach to 2 left turn lanes and 1 through lane with a shared right (adding 1 left turn lane)
  • Widen the eastbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane with overlap phasing (adding 1 right turn lane)
	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	

TR-11 – SR 198 WB Off Ramp and Mineral King Avenue					
• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios: • Widen the westbound approach to 2 through lanes (adding 1 through lane)	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-12 – Road 156					
• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios: South of Noble Avenue • Widen the segment from 2 to 4 travel lanes (adding 1 travel lane in each direction)	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
SR 198 Ramp Junctions					
TR-13 - SR 198 EB Off Ramp to Lovers Lane					
• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios: ○ Widen the SR 198 mainline from 2 to 3 travel lanes in the eastbound movement (adding 1 travel lane)	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-14 - SR 198 WB On Ramp from Lovers Lane					
• Cumulative Year 2040 Without Project and Cumulative Year 2040 Plus Project scenarios: ○ Widen the SR 198 mainline from 2 to 3 travel lanes in the westbound movement (adding 1 travel lane)	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
Queuing					
TR-15 - Lovers Lane and Houston Avenue (SR 216)					
• In the southbound left-turn lane, lengthen the storage pocket from 225 feet to 300 feet.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-16 - Lovers Lane and Mineral King Avenue					
• In the northbound left-turn lane, lengthen the storage pocket from 100 feet to 325 feet. • In the southbound left-turn lane, lengthen the storage pocket from 175 feet to 225 feet. • In the westbound left-turn lane, lengthen the storage pocket from 150 feet to 325 feet.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-17 - Lovers Lane and SR 198 EB Ramps					

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
• In the eastbound left-turn lane, lengthen the storage pocket from 225 feet to 375 feet.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-18 - Lovers Lane and Noble Avenue					
• In the eastbound left-turn lane, lengthen the storage pocket from 125 feet to 275 feet.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-19 - McAuliff Street and Houston Avenue (SR 216)					
• In the northbound left-turn lane, lengthen the storage pocket from 150 feet to 300 feet.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-20 - McAuliff Street and Mineral King Avenue					
• In the southbound right-turn lane, lengthen the storage pocket from 250 feet to 300 feet. • In the eastbound left-turn lane, lengthen the storage pocket from 200 feet to 275 feet. • In the westbound right-turn lane, provide 300-foot storage pocket.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-21 - Road 152 and Mineral King Avenue					
• In the southbound right-turn lane, provide 125-foot storage pocket. • In the eastbound left-turn lane, provide 100-foot storage pocket. • In the westbound right-turn lane, provide 125-foot storage pocket.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-22 - SR 198 EB Ramps and Noble Avenue					

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
• In the westbound right-turn lane, provide 125-foot storage pocket.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-23 - Road 156 and Noble Avenue					
• In the northbound left-turn lane, lengthen the storage pocket from 175 feet to 225 feet. • In the eastbound right-turn lane, provide 150-foot storage pocket.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-24 - Tower Street and Houston Avenue (SR 216)					
• In the northbound left-turn lane, provide 200-foot storage pocket. • In the northbound right-turn lane, provide 100-foot storage pocket.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-25 - Tower Street and McKinley Avenue-Project Driveway #2					
• In the southbound left-turn lane, provide 100-foot storage pocket.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-26 - Tower Street and Race Avenue					
• In the northbound left-turn lane, provide 100-foot storage pocket. • In the southbound left-turn lane, provide 100-foot storage pocket.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-27 - Tower Street and Murray Avenue					
• In the northbound left-turn lane, provided 250-foot storage pocket • In the southbound right-turn lane, provide 100-foot storage pocket	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
TR-28 - Tower Street and Villoy Avenue-Project Driveway #1					
• In the northbound left-turn lane, provide 150-foot storage pocket. • In the southbound left-turn lane, provide 100-foot storage pocket.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-29 - Tower Street and Villoy Avenue-Project Driveway #1					
• In the southbound left-turn lane, provide 250-foot storage pocket. • In the eastbound left-turn lane, provide 175-foot storage pocket.	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
Cumulative Year 2040 With Tower Street Interchange Mitigation Measures					
INTERSECTIONS					
TR-30 - Tower Street at Houston Avenue (SR 216)					
• Cumulative Year 2040 Without Project With Tower Street Interchange and Cumulative Year 2040 Plus Project With Tower Street Interchange scenarios: ○ Install Traffic Signal	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
TR-31 - Tower Street at Villoy Avenue-Project Driveway #1					
• Cumulative Year 2040 Plus Project With Tower Street Interchange scenario: ○ Install Traffic Signal	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	
Cumulative Year 2040 Plus Project With Tower Street Interchange Alternatives 1 and 2 Mitigation Measures					
SR 198 Ramp Junctions					

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
TR-32 - SR 198 EB On Ramp from Tower Street					
• Cumulative Year 2040 Plus Project With Tower Street Interchange – Alternative 1 scenario: ○ Widen the SR 198 mainline from 2 to 3 travel lanes in the eastbound movement (adding 1 travel lane)	Prior to operation of Phase 3	Once	City of Visalia	Completion of mitigation measure	