DRAFT

Initial Study and Mitigated Negative Declaration

Tentative Subdivision Map 19-01, General Plan Amendment 19-01, and Rezone 19-01 – East Street Industrial Park Unit 2 Project

December 2020

Lead Agency:

City of Anderson
1887 Howard Street
Anderson, California 96007

Prepared by:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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Chico, California 95973

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DRAFT MITIGATED NEGATIVE DECLARATION
TSM 19-01, GPA 19-01, AND REZONE 19-01
EAST STREET INDUSTRIAL PARK UNIT 2 PROJECT

Project Title/Purpose Tentative Subdivision Map 19-01, General Plan Amendment 19-01, and Rezone 19-01 – East Street Industrial Park Unit 2

Lead Agency: City of Anderson

Project Proponent: Insignia Builders

Project Location: The Project site is located northeast of State Route 273 and the Union Pacific Railroad tracks, west of the terminus of East Street and south of the Tormey Drain in the City of Anderson, APNs 201-890-038, 201-930-009 and 201-720-041. (*Figure 1. Regional Location* and *Figure 2. Project Location*). The site is within Section 15, Township 30 North, Range 4 East (Mount Diablo Base and Meridian) of the "Cottonwood, California" 7.5-minute quadrangle. The approximate center of the site is located at latitude 40.55649º and longitude -122.306759º.

Project Description: The Project involves a request to amend the General Plan land use designation (GPA 19-01) from Medium Density Residential (MDR) and Commercial (C) to all C. The Project also involves a request to rezone (RZ 19-01) from MDR (R-2) and Heavy Commercial (C-3) to all C-3. The Project also proposes a subdivision of the property (Tentative Subdivision map 19-01) from three parcels to 15 parcels. The Project site is approximately 9.4 acres in size total, whereas 4.85 net acres would be rezoned and redesignated. Construction of the extension of East Street including installation of water, sewer and stormwater infrastructure through the Project site will be developed as a part of the Project. No other actual development for the Project is proposed at this time.

Public Review Period: December 11, 2020 to January 9, 2020

Mitigation Measures Incorporated into the Project to Avoid Significant Effects:

AQ-1: **Construction Dust Control.** Prior to improvement plans approval and issuance of a grading permit for any future development on the Project parcels, including roadway development, the future project applicant shall submit a grading permit application for review and approval by the City of Anderson. The following specifications shall be included on the permit to reduce short-term air quality impacts attributable to the onsite and offsite construction activities:

- Apply nontoxic soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Reestablish ground cover on the construction site through seeding and watering prior to final occupancy.
- All grading operations of a project shall be suspended when winds (as instantaneous gusts) exceed 20 miles per hour as directed by the SCAQMD.
- Provide temporary traffic control as appropriate during all phases of construction to improve traffic flow.
- Water active construction sites twice daily as appropriate.
- All truck hauling of construction materials shall comply with the requirements of California Vehicle Code (CVC) Section 23114. This provision is enforced by local law enforcement agencies.
- Sweep streets anytime sediment is tracked from the project site (recommend water sweeper with reclaimed water).
- All onsite vehicles shall be limited to a speed of 15 miles per hour on unpaved roads.

Timing/Implementation: *Prior to issuance of a grading permit*

Monitoring/Enforcement: *The City of Anderson*

BIO-1: **Vernal Pool Fairy Shrimp.** Vernal pool fairy shrimp are federally listed as threatened. Due to its location and the potential for impact during roadway construction, grading and future development on and near seasonal wetland (WF 01), all vernal pool fairy shrimp located in WF 01 will be lost. As such, consultation with the USFWS and mitigation for impacts to this species acceptable to USFWS, in combination with the requirements of mitigation measure BIO-6, shall be required.

Timing/Implementation: *Prior to commencement of any future construction*

Monitoring/Enforcement: *The City of Anderson*

BIO-2: **Western Spadefoot.** To minimize impacts to western spadefoot, the following avoidance and minimization measures shall be implemented prior to any future construction activities:

- Clearance surveys shall be conducted immediately prior to the initiation of work when water is present within the Project site. Any life stages of western spadefoot shall be relocated to appropriate habitat by a qualified biologist.

Timing/Implementation: *Prior to commencement of construction and during construction*

Monitoring/Enforcement: *The City of Anderson*

BIO-3: **Western Pond Turtle.** To minimize impacts to western pond turtle, the following avoidance and minimization measures shall be implemented prior to any future construction activities:

- Immediately prior to conducting work within western pond turtle habitat, a qualified biologist shall conduct a western pond turtle clearance survey.
- A qualified biologist shall be onsite during all vegetation removal within western pond turtle habitat and during the installation or removal of water diversions.
- If western pond turtles are identified in an area where they will be impacted by Project activities, the biologist shall relocate the turtles outside of the work area or create a species protection buffer (determined by the biologist) until the turtles have left the work area.
- Before initiating any ground disturbances, restrictive silt fencing shall be installed along the boundaries of the construction area to prevent western pond turtle from entering the construction site from the adjacent aquatic settings and to prevent construction equipment and personnel from entering sensitive habitat from the construction site**.**

Timing/Implementation: *Prior to commencement of construction and during construction*

Monitoring/Enforcement: *The City of Anderson*

BIO-4: **Special-Status and Migratory Bird Treaty Act Birds.** To avoid impacts to avian species protected under the MBTA and the California Fish and Game Code the following avoidance and minimization measures shall be implemented prior to any future construction activities:

- Project activities including site grubbing and vegetation removal shall be initiated outside of the bird nesting season (the nesting season is defined as: February 1 – August 31).
- If Project activities cannot be initiated outside of the bird nesting season, the following shall occur:
  - A qualified biologist shall conduct a pre-construction survey within 250 feet of the BSA, where accessible, within seven days prior to the start of Project activities.

- If an active nest (i.e., containing egg(s) or young) is observed within the BSA or in an area adjacent to the BSA where impacts could occur, a species protection buffer shall be established. The species protection buffer shall be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored by a qualified biologist once per week and a report submitted to the City of Anderson weekly.

Timing/Implementation: *Prior to commencement of construction and during construction*

Monitoring/Enforcement: *The City of Anderson*

BIO-5: **Western Red Bats:** To minimize impacts to bat species protected by the California Fish and Game Code, the following avoidance and minimization measures shall be implemented prior to any future construction activities:

- If mature trees are removed or trimmed, the removal or trimming activity shall be performed outside of the bat maternity season (between September 16 and March 15).

Timing/Implementation: *Prior to commencement of construction and during construction*

Monitoring/Enforcement: *The City of Anderson*

BIO-6: **Waters of the United States.** If future construction activities occur within the ordinary high water mark and/or result in fill or discharge to any Waters of the U.S. which include but are not limited to, intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, vernal pools or natural ponds, the following shall be obtained:

- Prior to any discharge or fill material into Waters of the United States, authorization under a Nationwide Permit or Individual Permit shall be obtained from the USACE (Clean Water Act [CWA] § 404). For fill requiring a USACE permit, a water quality certification from the RWQCB (CWA § 401) shall also be obtained prior to discharge of dredged or fill material.
- Prior to any activities that would obstruct the flow of or alter the bed, channel, or bank of any perennial, intermittent or ephemeral creeks, notification of streambed alteration shall be submitted to the CDFW, and, if required, a Lake and Streambed Alteration Agreement (California Fish and Game Code § 1602) shall be obtained.

Mitigation requirements for the fill of Waters of the United States shall be implemented through an onsite restoration plan, and/or an In-Lieu Fund and/or a certified mitigation bank with a service area that covers the Project Area.

Timing/Implementation: *Prior to commencement of construction and during construction*

Monitoring/Enforcement: *The City of Anderson*

BIO 7: **Tree Removal.** Trees shall be preserved where possible and the loss of trees to be removed shall be mitigated on a one-to-one ratio or another ratio acceptable to the City. Per General Plan Implementation BRI-7, tree removal can be compensated by planting trees adjacent to the railroad right of way or along Tormey Drain..

Prior to any issuance of grading or building permits for any site with blue oaks or heritage trees, the trees shall be mapped on a tree removal mitigation plan and shall be approved by the City of Anderson.

Timing/Implementation: *Prior to any issuance of grading or building permits*

Monitoring/Enforcement: *The City of Anderson*

CUL-1: **Cultural or Archaeological Resource Discovery.** All subdivision improvement plans and grading plans shall include the following:

If subsurface deposits believed to be cultural or human in origin are discovered during any roadway or future construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the City and landowner. If the find is determined to be eligible for inclusion in the National Register of Historic Places (NRHP) or California Register of Historic Places (CRHR), the City shall consult on a finding of eligibility and implement appropriate treatment measures. Work may not resume within the no-work radius until the City, through consultation as appropriate, determines that the site either: 1) is not eligible for the NRHP or CRHR; or 2) that the treatment measures have been completed to its satisfaction.
- If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Shasta County Coroner (in accordance with § 7050.5 of the Health and Safety Code). The provisions of § 7050.5

of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *The City of Anderson*

GEO-1: **Expansive Soils.** All future development on the Project site shall complete a geotechnical engineering analysis and implement all measures included in that report to reduce the effects of expansive soils, if necessary, to the satisfaction of the City Building Official.

Timing/Implementation: *Prior to and during construction*

Monitoring/Enforcement: *The City of Anderson*

GEO-2: **Paleontological or Sensitive Geologic Resource Discovery.** If paleontological or other geologically sensitive resources are identified during any phase of development, including roadway development and future developments on the Project site, the applicant shall cease operation at the site of the discovery and immediately notify the City of Anderson. The future Project proponent shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less than significant level. In considering any suggested mitigation proposed by the qualified paleontologist, the City shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the development site while mitigation for paleontological resources is conducted.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *The City of Anderson*

HYD-1: **Stormwater Retention and Detention.** The improvement plans for subdivision construction and all individual lot construction shall provide stormwater detention and retention along with a drainage report that demonstrates that the receiving basin watersheds will not have an increase in peak stormwater flows at any location downstream for the 10-year, 25-year and 100-year return periods. Stormwater detention, retention and engineering reports shall be approved by the City Engineer prior to issuance of grading permits.

Timing/Implementation: *Prior to issuance of grading permit*

Monitoring/Enforcement: *The City of Anderson*

HYD-2: **Stormwater Treatment.** The improvement plans for subdivision construction and all individual lot construction shall provide stormwater treatment in accordance with the State Water Quality Control Board Phase II Small MS4 General Permit. Water balance calculations and supporting information, when applicable, shall be approved by the City Engineer prior to issuance of grading permits. An operation and maintenance (O&M) plan shall be prepared for all treatment related site design and stormwater treatment measures. The O&M plan shall be prepared by the applicant and approved by the City Engineer prior to issuance of grading permits or building permits, as applicable.

Timing/Implementation: *Prior to issuance of grading permit or building permit, as applicable*

Monitoring/Enforcement: *The City of Anderson*

NOI-1: **Operational Noise Control.** For any future development located on proposed parcels 5 through 15 that are proposed to operate between the hours of 10:00 p.m. to 7:00 a.m., the preparation of an acoustical analysis will be required that quantifies onsite noise sources specific to said future development. In the case that noise sources are calculated to exceed City noise standards, noise-reduction measures must be implemented to the extent that onsite noise sources would not exceed City noise standards at any receiving receptor. Examples of potential noise-reduction measures include, but are not limited to, the construction of solid noise barriers at the site boundary and/or the redesign of the future development to locate noise sources further from noise receptors.

Timing/Implementation: *During operation of future commercial or heavy commercial development*

Monitoring/Enforcement: *The City of Anderson*

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LIST OF ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
AB	Assembly Bill
AF	Acre-feet
ACID	Anderson Cottonwood Irrigation District
AFY	Acre-feet per year
AMSL	Above mean sea level
APE	Area of Potential Effects
APN	Accessor Parcel Number
BAAQMD	Bay Area Air Quality Management District
BAMM	Best Available Mitigation Measures
BMPs	Best Management Practices
BP	Before present
BRA	Biological Resources Assessment

LIST OF ACRONYMS AND ABBREVIATIONS

BSA	Biological Survey Area
CAA	Clean Air Act
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEC	California Energy Commission
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	Methane
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Database
CNEL	Community noise equivalent level
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CRHR	California Register of Historic Places
CVC	California Vehicle Code
CWA	Clean Water Act
dBA	Decibels
DMR	Division of Mine Reclamation
DOC	California Department of Conservation
DOF	Department of Finance
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EAGSA	Enterprise Anderson Groundwater Sustainability Agency
EIR	Environmental Impact Report
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map

LIST OF ACRONYMS AND ABBREVIATIONS

FTA	Federal Transit Administration
General Permit	General Construction Activity Stormwater Permit
GHG	Greenhouse Gas
GPCPD	Gallons per capita per day
GSA	???
GSP	Groundwater Sustainability Plan
HE	Housing equivalent
I-5	Interstate 5
IS	Initial Study
IS/MND	Initial Study Mitigated Negative Declaration
kWh	Kilowatt hours
L_{dn}	Day-night average sound level
L_{eq}	L_{eq}
LOS	Level of service
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MWELO	Model Water Efficient Landscape Ordinance
mgd	Million gallons per day
MLD	Most Likely Descendent
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zones
MS4	Municipal Separate Storm Sewer Systems
NAHC	Native American Heritage Commission
NEIC	North Central Information Center
N_2O	Nitrous oxide
NO_2	Nitrogen dioxide
NOI	Notice of Intent
NO_x	Nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSVAB	Northern Sacramento Valley Air Basin
O_3	Ozone
OHP	Office of Historic Preservation
O&E	Operation and maintenance
PG&E	Pacific Gas and Electric
PM_{10} and $PM_{2.5}$	Particulate Matter
PRC	Public Resource Code
Project/ Proposed Project	Tentative Subdivision Map No. 19-01 – East Street Industrial Park Unit 2
RCAP	Regional Climate Action Plan

LIST OF ACRONYMS AND ABBREVIATIONS

ROG	Reactive Organic Gases
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAQMD	Shasta County Air Quality Management District
SCS	Sustainable Communities Strategy
SGMA	Sustainable Groundwater Management Act
SMM	Standard Mitigation Measures
SNC	Sensitive Natural Community
SO_2	sulfur dioxide
SR	State Route
SRTA	Shasta Regional Transportation Agency
SRWP	Sacramento River Watershed Program
SSC	Species of Special Concern
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TSM	Tentative Subdivision Map
USACE	United States Army Corps of Engineers
UCMP	California Museum of Paleontology
UPRR	Union Pacific Railroad
USC	U.S. Code
USEPA	Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	Vehicle miles traveled
WSE	Water surface elevation

SECTION 1.0 BACKGROUND

1.1 Summary

Project Title:	Tentative Subdivision Map No. 19-01, General Plan Amendment 19-01, and Rezone 19-01 – East Street Industrial Park Unit 2
Lead Agency Name and Address:	City of Anderson 1887 Howard Street Anderson, CA 96007
Lead Agency Contact Person and Phone Number:	Russ Wenham, (530) 378-6643
Project Owner	Insignia Builders
Project Location:	The Project site is located northeast of State Route (SR) 273 and the Union Pacific Railroad (UPRR) tracks, west of the terminus of East Street and south of the Tormey Drain in the City of Anderson. (*Figure 1. Regional Location* and *Figure 2. Project Location*). The site is within Sections 15, Township 30 North, Range 4 East (Mount Diablo Base and Meridian) of the "Cottonwood, California" 7.5-minute quadrangle. The approximate center of the site is located at latitude 40.55649 º and longitude -122.306759 º.
General Plan Designation:	Medium Density Residential (MDR) and Commercial (C)
Zoning:	Medium Density Residential (R-2) and Heavy Commercial (C-3)

1.2 Introduction

The City of Anderson is the Lead Agency for this Initial Study/Mitigated Negative Declaration (IS/MND), which has been prepared to identify and assess the anticipated environmental impacts of the Tentative Subdivision Map 19-01 (TSM 19-01), General Plan Amendment 19-01 (GPA 19-01), and Rezone 19-01 – East Street Industrial Park Unit 2 Project (Project or Proposed Project) and mitigate potentially significant environmental effects. This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Public Resource Code [PRC], § 21000 et seq.) and State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of Projects over which they have discretionary authority before acting on

those Projects. A CEQA IS/MND is generally used to determine the potentially significant environmental affects and mitigate those to be less than significant.

1.3 Project Location and Surrounding Land Uses

The Project site is located in the north area of the City of Anderson between SR 273 and UPRR tracks, and the Tormey Drain. Both Josh Drive and East Street currently terminate at the Project site's southeastern border.

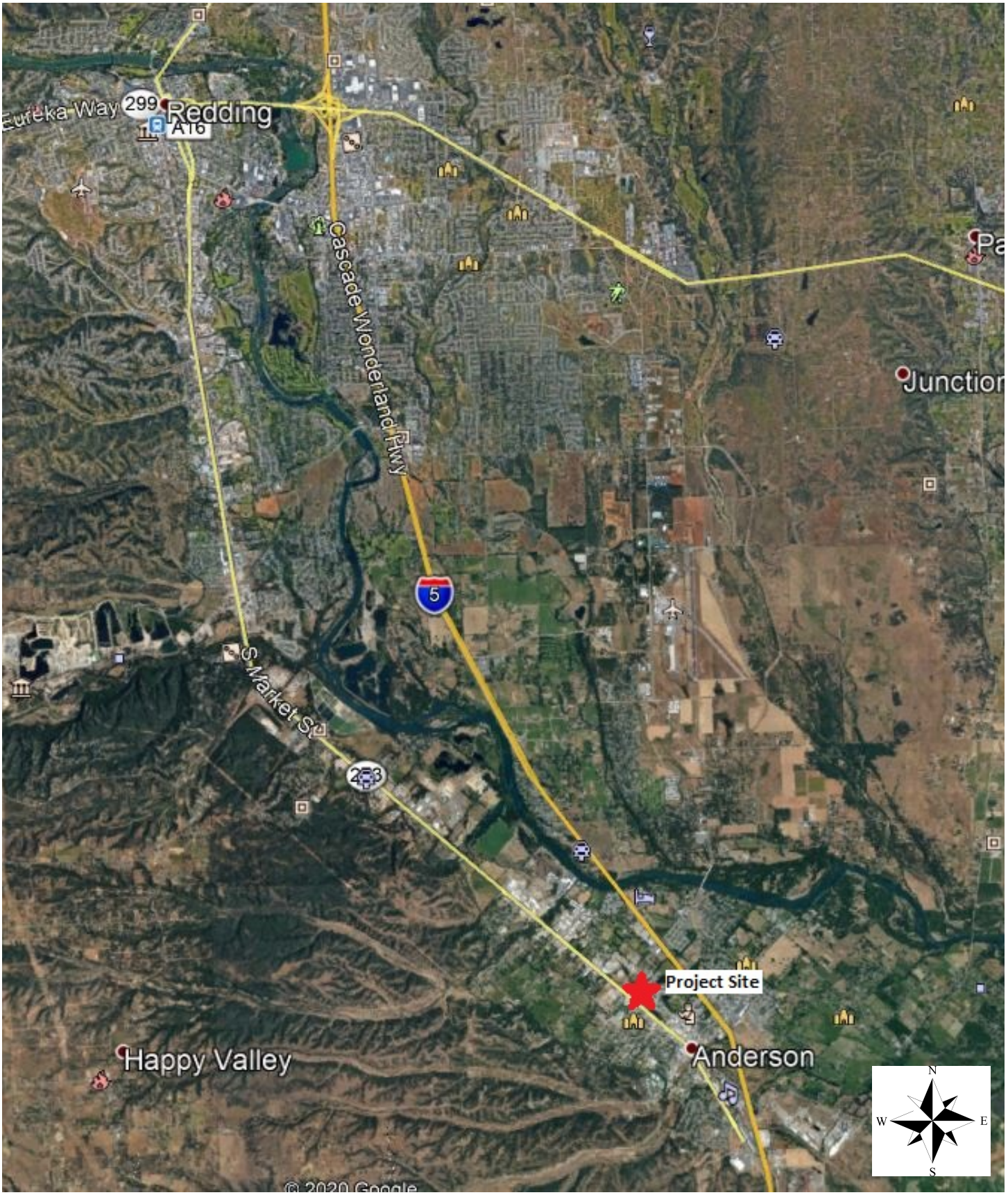
The Project site is within Section 15, Township 30 North, Range 4 East (Mount Diablo Base and Meridian) of the "Cottonwood, California" 7.5-minute quadrangle. (see *Figures 1 and 2*). The approximate center of the Project site is located at latitude 40.55649˚ and longitude -122.306759˚. The Project is located on three parcels including the following:

Accessor's Parcel Numbers		
201-890-038	201-720-041	201-930-009 (portion)

The 9.4-acre Project site is undeveloped vacant land with single-family residential uses to the southeast, and northeast. Southwest of the site are the tracks of the UPRR, SR273 and 65-acre Shasta District Fairgrounds and Event Center. Northwest of the site is vacant land with light industrial uses beyond. See *Figure 3. Surrounding Uses*.

1.4 Environmental Setting

The Proposed Project is located in a rural/urban interface of the City of Anderson with mostly industrial land occurring northwest of the site. The 9.4-acre Project site is located within the northern Central Valley of California. The site is primarily composed of disturbed annual grassland habitat with patches of trees and shrubs. An unnamed drainage occurs along the eastern/southeastern boundary and flows into Tormey Drain, which runs parallel to the northern boundary of the Project site. Only the portion of the drainage within the southeastern corner of the Project site is lined by a dense tree canopy (composed of valley oaks), with the remainder of the drainage being largely void of tree canopy. Riparian and wetland vegetation occurs within the banks of this drainage. Previous human disturbances are evident throughout the site, which is surrounded by disturbed annual grassland and developed land. The site abuts a railroad right-of-way and a large housing development. A well-used dirt access road that is an unofficial continuation of East Street runs through the approximate center of the site. The central portion of the Project site has been previously scraped and has been highly manipulated with multiple old elevated dirt access roads, spoil piles, and a now defunct cross drainage ditch (Gallaway Enterprises 2020a). The Project site is relatively flat with elevations between 417 and 425 above mean sea level (AMSL) for the site.



Map Date: *10/15/2020*
Photo (or Base) Source: *Google Earth 2020*

Figure 1. Regional Location

2020-157 Anderson East Street

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Map Date: *10/15/2020*
Photo (or Base) Source: *Google Earth 2020*

Figure 2. Project Location

2020-157 Anderson East Street

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Map Date: *10/16/2020*
Photo (or Base) Source: *Google Earth 2020*

Figure 3. Surrounding Uses

2020-157 Anderson East Street

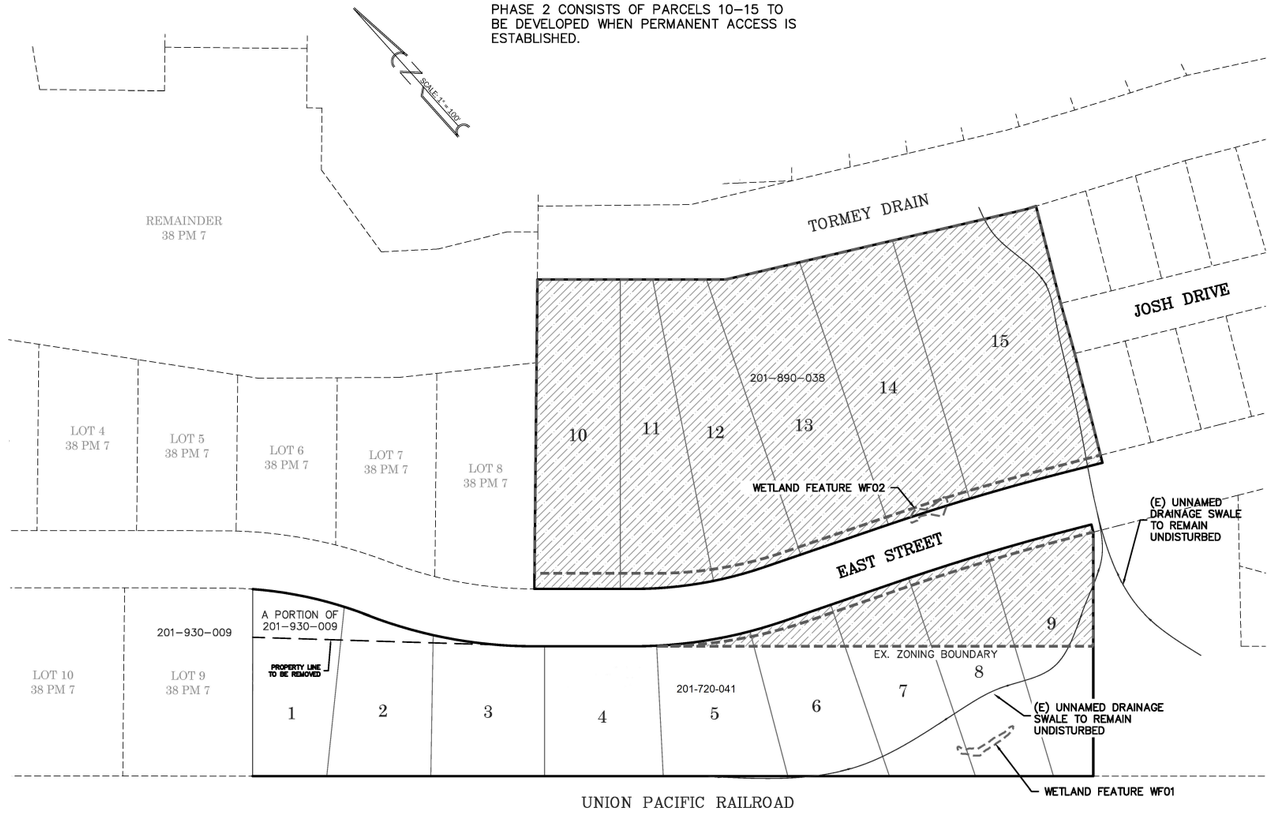
ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

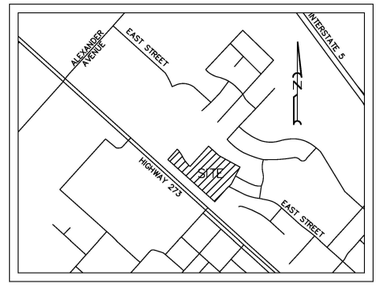
AREA INCLUDED IN ZONING & GENERAL PLAN AMENDMENT

RIGHT OF WAY AREA TO BE RECLAIMED

BASIS OF ELEVATION:
RM 26 (6X6 CONCRETE BLOCK WITH BRASS CAP, NORTH SIDE OF LASSEN WAY AND WEST SIDE OF 273) ELEV.=430.58'

PHASING:
PHASE 1 CONSISTS OF PARCELS 1–9.
PHASE 2 CONSISTS OF PARCELS 10–15 TO BE DEVELOPED WHEN PERMANENT ACCESS IS ESTABLISHED.





VICINITY MAP
NOT TO SCALE

OWNER
INSIGNIA BUILDERS
1643 TAHOE COURT
REDDING, CA 96003

ENGINEER
DUANE K. MILLER
CIVIL ENGINEER, INC.
PO BOX 1307
ANDERSON, CA 96007

PROJECT ADDRESS
VACANT PARCELS
EAST STREET
ANDERSON, CA 96007

WATER/SEWER
CITY OF ANDERSON

ELECTRICITY AND GAS
PG&E

TELEPHONE
AT&T

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

PLANS PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
DUANE K. MILLER
No. 29490
EXP: 03/31/21
CIVIL
STATE OF CALIFORNIA

EAST STREET INDUSTRIAL PARK UNIT 2
TENTATIVE PARCEL MAP 19-01

BEING A PORTION OF THE NW 1/4 OF SECTION 26, TOWNSHIP 30 NORTH, RANGE 4 WEST M.D.M., SITUATED IN THE CITY OF ANDERSON, COUNTY OF SHASTA, STATE OF CALIFORNIA

FOR
INSIGNIA BUILDERS
BY
DUANE K. MILLER
CIVIL ENGINEER, INC.
6172 MEISTER WAY, UNIT 1
PO BOX 1307
ANDERSON, CA 96007
(530) 365–5610

11/12/2020 SCALE 1" = 100' SHEET 1 OF 3

P:\Projects\19.000 Jobs\19.051\DWG\PLAN - TPM 11/12/2020

Map Date: *11/12/2020*
Photo (or Base) Source: *Duane K Miller, Civil Engineer 2020*

Figure 4. Tentative Subdivision Map

2020-157 Anderson East Street

SECTION 2.0 PROJECT DESCRIPTION

2.1 Project Description

The Project includes a General Plan amendment, rezoning, and a Tentative Subdivision map. Current and proposed land use and zoning designations for the three parcels are listed below.

Table 2.1-1. Parcel Land Use

Parcel APN	Existing Acres	General Plan Designation		Zoning District	
		Current	Proposed	Current	Proposed
201-890-038	4.59	MDR	C	R-2	C-3
201-720-041 (portion)	1.26	MDR	C	R-2	C-3
201-720-041 (portion)	3.34	C	C	C-3	C-3
201-930-009	0.21	C	C	C-3	C-3

Notes: MDR = Medium Density Residential C = Commercial, R-2 = Median Density Residential, C-3 = Heavy Commercial

As shown, the current City of Anderson General Plan land use designations for the three parcels are either Medium Density Residential (MDR) or Commercial (C). The two parcels that are currently MDR are proposed to be changed to C.

The requested rezoning includes two parcels that are currently zoned R-2 (Medium Density Residential) are proposed for rezone to C-3 (Heavy Commercial).

The tentative subdivision map will result in the dividing the three parcels into 15 parcels. The new parcels sizes range from 20,000 to 50,618 square feet. The proposed subdivision map is shown in *Figure 4*. No actual commercial construction is proposed at this time. However, the extension of East Street within the subdivision will be constructed. This will include installation of water, sewer and storm water infrastructure. East Street will eventually be fully developed off-site to connect to the existing Portola Way/East Street northwest of the Project site. However, this section of East Street development is not a part of the Proposed Project and was approved under a previous subdivision map.

Also, mass grading of the site will be required by the City as a condition of approval and is considered in this Initial Study to be a part of near-term construction.

As far as changes that may affect the environment, other the roadway construction and grading described above, would be those parcels that would be affected as a result in a change to the existing General Plan land use designation and a rezone. This change in land use and zoning designations would allow for development not presently considered or analyzed under the General Plan and General Plan Environmental Impact Report (EIR) for those parcels. These include two parcels, Assessor's Parcel Numbers (APNs) 201-890-038 and a 1.26-acre portion of 201-720-041, totaling 5.85 acres. Those parcels that do not require a change in land use designation or zoning would continue to be allowed to be developed in

the future as they currently would; changes in the number of lots would not result in an increase in environmental affects over current allowed uses on those lots. Therefore, these lots would not have an environmental impact not previously considered in the General Plan and General Plan EIR. Further discussion of this is provided below.

2.1.1 Land Use Comparison

Other than construction of Est Street and site grading, no other development activities are proposed for the Project. In order to determine the potential for future environmental impacts as a result of the Project's proposed land use changes, an analysis of potential futures uses compared to existing uses must be completed. APNs 201-930-009, 201-720-041 will split to create nine new parcels (shown as parcels 1 through 9 on *Figure 4*). APN 201-890-038 will be split to create parcels 10 through 15.

The Proposed Project rezone of these parcels to C-3 will allow for a variety of commercial uses to be developed on the Project site in the future. Those uses permitted by right, (e.g., no use permit or other discretionary action is required), would include things such as an antique or gift shop, a parking lot, an automobile parts supply store, a bakery, a bank, a barber or beauty shop, a bookstore, building materials, electrical materials and plumbing material sales, furniture sales, a feed store, a nursery, garden supply, and offices of a professional nature, etc. For a complete list of uses permitted by right in the C-3 zoning district, see Section 17.22.020 of the Anderson Municipal Code.

Table 2.1-2 above identifies the existing and proposed land uses and the maximum densities/intensities that these uses could yield. Also shown in Table 2.1-1, the existing City of Anderson General Plan land use designation for the Project site is C and MDR. Zoning on these parcels is R-2 or C-3. The General Plan identifies the maximum number of dwelling units per acre by use type. For MDR this density is 20 dwelling units per acre (Anderson 2007a). Under existing conditions, using these factors and the parcel acreages, the total number of residential units possible for the Project site would be 116 based on the General Plan maximum densities. This figure is a very rough estimate based purely on maximum densities and acreage and does not account for any limiting factors that may be present such as flood zones, steep slopes, or required height limits, setbacks, and street right-of-way. However, based on the General Plan maximum densities, the Project site, currently, has the maximum potential for development of 116 residential units. Approval of the Project would result in a change in land use designation and zoning on those parcels currently zoned for residential uses. This would result in the potential loss of 116 residential units.

According to the General Plan, the Commercial land use designation includes high activity land uses. These include retail, service, repair and storage uses. Additional uses would include warehouses, building material yards, contractors' storage yards, outside storage, repair establishments, caretaker residences and other uses. The intensity factor identified in the General Plan is 80 percent land coverage (Anderson 2007a). However, further analysis completed as a part of the Traffic Impact Report, determined that a review of similar heavy commercial developments in the vicinity of the project found floor area ratios (the ratio of building areas to total lot acreage) to range from 10 percent to 33 percent (GDH 2020). Further. City staff has determined that the land coverage for commercial uses, because of limiting factors such as parking lots, setbacks, and landscaping, would reduce the maximum intensity factor to 20 percent (Anderson 2020a). Based on this intensity factor and existing commercial acreage, under existing

conditions, the Project site would have the potential for 69,438 square feet (net) of commercial uses. As with the residential unit potential, this figure is just a very rough estimate purely based on maximum intensity and acreage and does not account for any limiting factors that may be present such as flood zones, steep slopes, or required height limits, setbacks, parking lots, and street right-of-way. The actual commercial square footage may not reach the maximum potential.

Table 2.1-2. Land Use Comparison

Parcel APN	Existing Acres	Existing Potential		Proposed Potential				Change
		Max Units/Acre or Max Intensity/ Acre	Max Dwelling Units or Comm. Sq. Ft.	New Parcel	Square Footage (net)	Max Intensity/ Acre	Max Comm. Sq. Ft.	
201-930-009	0.21 ac	20%	1,830 sq. ft.	1	20,000	20%	4,000	-25 units +6,705 sq. ft. commercial
				2	20,000		4,000	
				3	20,000		4,000	
201-720-041 (portion)	3.34 ac	20%	29,098 sq. ft.	4	20,000		4,000	
				5	20,000		4,000	
				6	20,000		4,000	
				7	21,266		4,253	
201-720-041 (portion)	1.26 ac	20 units/ac	25 dwelling units	8	23,072		4,614	
				9	23,825		4,765	
Subtotal	4.81 ac	25 dwelling units 30,928 sq. ft. commercial				37,633 sq. ft. commercial		
201-890-038	4.59	20 units/ac	91 dwelling units	10	31,887	20%	6,377	-91 res. units +31,805 sq. ft. commercial
				11	25,270		5,054	
				12	27,964		5,593	
				13	28,706		5,741	
				14	22,797		4,559	
				15	22,400		4,480	
Subtotal	4.59	91 dwelling units				31,805 sq. ft. commercial		
Total	9.4	116 dwelling units 30,928 sq. ft. commercial			347,187	69,438 sq. ft. commercial		-116 units +38,510 sq. ft.

Affected Area of General Plan Amendment and Rezone

While approval of the Proposed Project would result in a change in the number of parcels from 4 to 15, only certain parcels and portions of parcels would be included in the General Plan amendment and rezone. All of the area in the new parcels 10 through 15 would be a part of the General Plan amendment and rezone. However, only portions of new parcels 5 through 9, those portions taken from the original APN 201-720-041, would be a part of the General Plan amendment and rezone as these areas are currently within the MDR land use designation and R-2 zoning district. As such, the General Plan amendment and rezone only affect ±4.85-acres of the 9.4-acre Project site, as shown in *Figure 5. Area of*

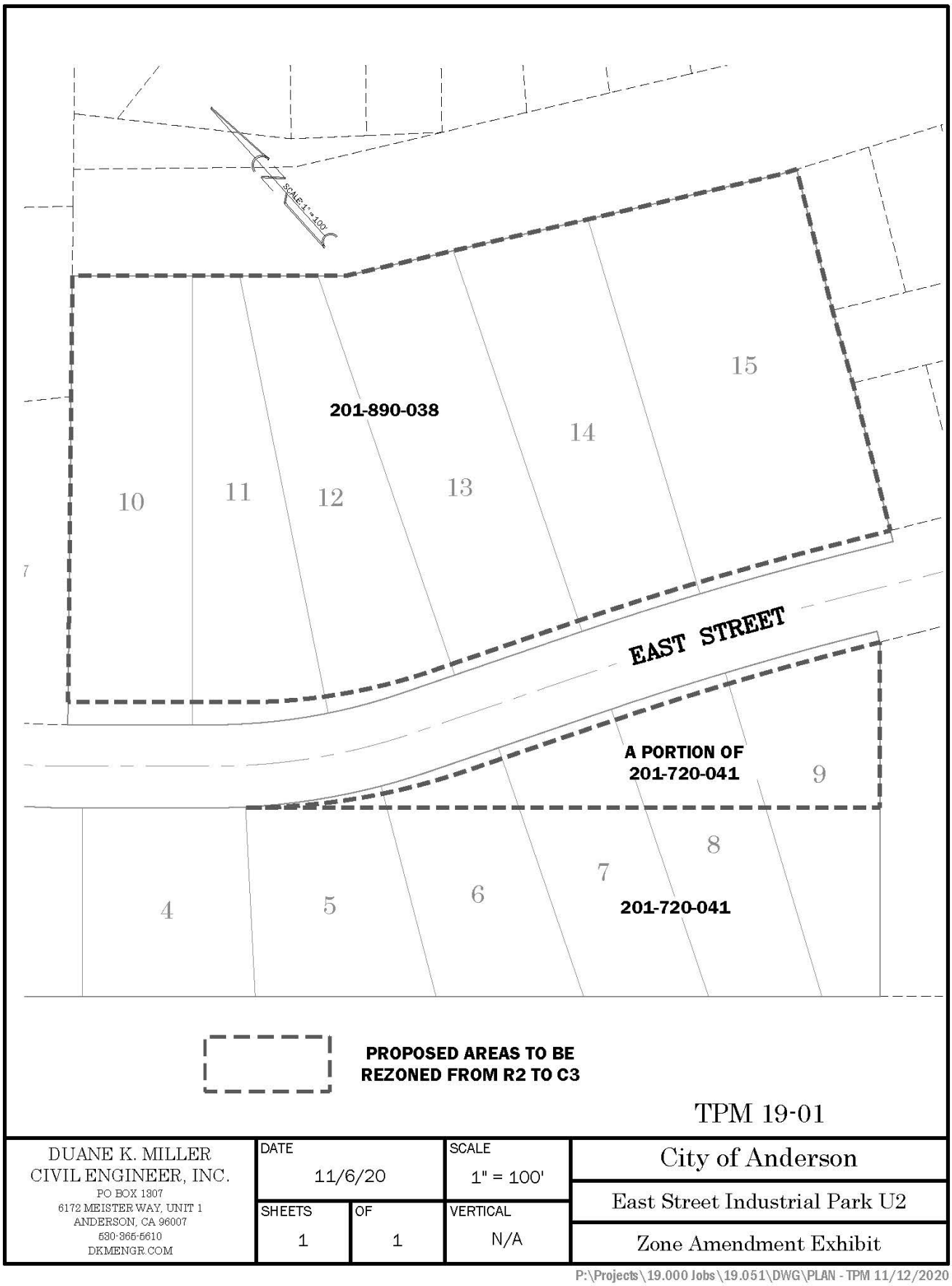
General Plan Amendment and Rezone. This is the area of concern for this IS/MND because this is the only area of the Proposed Project that will allow new uses, with approval of the Project, that are not currently allowed and therefore not previously analyzed in the General Plan EIR as to their effect on the environment.

Table 2.1-3 illustrates the General Plan amendment and rezone area under existing and proposed potential uses for these parcels. Approval of the Proposed Project would result in a decrease in potential dwelling units on the site by 116 units but allow for an increase of 69,437 square feet of commercial uses.

Table 2.1-3. General Plan Amendment/Rezone Area Comparison

Parcels		General Plan/Zoning		Current Development Potential (based on current acreage and 20 units /ac)	Future Development Potential (at 20% land coverage intensity, sq. ft. commercial)	Change
Existing	New	Current	Proposed			
APN 201-720-041 (portion)	5	MDR/R-2	C/C-3	1.26 ac = 25 dwelling units	400[1]	-25 dwelling units +7,824 sq. ft. commercial
	6	MDR/R-2	C/C-3		1,000[1]	
	7	MDR/R-2	C/C-3		1,489[1]	
	8	MDR/R-2	C/C-3		2,076[1]	
	9	MDR/R-2	C/C-3		2,859[1]	
APN 201-890-038	10	MDR/R-2	C/C-3	4.59 ac = 91 dwelling units	6,377	- 91 dwelling units +31,805 sq. ft. commercial
	11	MDR/R-2	C/C-3		5,054	
	12	MDR/R-2	C/C-3		5,593	
	13	MDR/R-2	C/C-3		7,010	
	14	MDR/R-2	C/C-3		6,550	
	15	MDR/R-2	C/C-3		10,124	
Total				116 dwelling units	69,437	-116 dwelling units +69,437 sq. ft. commercial

Notes: 1) Square footage for parcels 5 through 9 is estimated based on Tentative Subdivision map (TPM) analysis as these lots are created from more than one original parcel.



DUANE K. MILLER CIVIL ENGINEER, INC. PO BOX 1307 6172 MEISTER WAY, UNIT 1 ANDERSON, CA 96007 530-365-5610 DKMENGR.COM	DATE 11/6/20		SCALE 1" = 100'	City of Anderson
	SHEETS 1	OF 1	VERTICAL N/A	East Street Industrial Park U2
				Zone Amendment Exhibit

P:\Projects\19.000 Jobs\19.051\DWG\PLAN - TPM 11/12/2020

Map Date:*11/1522020*
Photo (or Base) Source:*Duane K Miller, Civil Engineer 2020*

Figure 5. Area of General Plan Amendment and Rezone Map

2.2 Regulatory Requirements, Permits, and Approvals

The following approvals and regulatory permits would be required for implementation of the Proposed Project.

2.2.1 Lead Agency Approval

The City of Anderson is the lead agency for the Proposed Project. In order to approve the Proposed Project, the Anderson City Council must first adopt the IS/MND, approve the Proposed Project, and file a Notice of Determination within five working days. The Council will consider the information contained in the IS/MND in making its decision to approve or deny the Proposed Project. The IS/MND is intended to disclose to the public the Proposed Project's details, analyses of the Proposed Project's potential environment impacts, and identification of feasible mitigation that will reduce potentially significant impacts to less than significant levels.

The Project may require approvals and/or permits from other public agencies for which this Initial Study may be used, including, without limitation, the following:

2.2.2 Central Valley Regional Water Quality Control Board

The Regional Water Quality Control Board (RWQCB) typically requires that a Construction General Permit be obtained for projects that disturb more than one acre of soil, or discharges from smaller sites that are part of a larger common plan of development or sale. Other than the construction of the East Street extension and mass site grading, no other development is proposed for the Project. However, for any future construction, a Storm Water Pollution Prevention Plan (SWPPP) may be required. Typical conditions issued with such a permit include the submittal of and adherence to a SWPPP, as well as prohibitions on the release of oils, grease, or other hazardous materials.

2.2.3 Shasta County Air Quality Management District

The Proposed Project is located in an area under the jurisdiction of the Shasta County Air Quality Management District (SCAQMD). All construction on the Project site will be required to comply with applicable SCAQMD rules.

2.2.4 California Department of Fish and Wildlife

The California Endangered Species Act applies the take prohibitions to species proposed for listing (called "candidates" by the State). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Consultation with CDFW prior to the "take" of any ESA listed species to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

Section 1602 of the California Fish and Game Code requires individuals or agencies to provide a Notification of Lake or Streambed Alteration to CDFW for "any activity that may substantially divert or

obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." CDFW reviews the proposed actions and, if necessary, proposed measures to protect affected fish and wildlife resources. The final proposal mutually agreed upon by CDFW and the applicant is the Lake or Streambed Alternation Agreement.

2.2.5 U.S. Army Corps of Engineers

Waters of the U.S., including wetlands, are regulated by the USACE under Section 404 of the Clean Water Act (CWA). Removal of Project wetlands would require authorization by the USACE through the approval of a Section 404 permit.

2.2.6 U.S. Fish and Wildlife Service

The federal ESA protects plants and animals that are listed as endangered or threatened by the USFWS and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 CFR 17.3). Under Section 7 of ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species.

2.3 Relationship of Project to Other Plans and Projects

2.3.1 City of Anderson General Plan

The City of Anderson General Plan (Plan) is a plan for the City and for the adjacent Planning Area. The Plan will allow needed growth while protecting the "small town" characteristics of Anderson. The Plan emphasizes planning for the health and safety of all residents—now and in the future (Anderson 2007a).

General plans are prepared under a mandate from the State of California, which requires that each city and county prepare and adopt a comprehensive, long-term general plan for its jurisdiction and any adjacent related lands. The general plan serves as a basis for decision making. The plan directs decisionmakers, who must balance competing community objectives, which sometimes present trade-offs. The City of Anderson General Plan consists of seven elements. These Elements are:

- Land Use;
- Circulation;
- Open Space and Conservation;
- Health and Safety;
- Noise;
- Recreation; and
- Housing.

2.3.2 Consultation with California Native American Tribe(s)

Assembly Bill (AB) 52 requires that prior to the release of a CEQA document for a project, an agency begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the Proposed Project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the Lead Agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe and (2) the California Native American tribe responds in writing, within 30 days of receipt of the formal notification, and requests the consultation. The City of Anderson notified the Greenville Rancheria of Maidu Indians of the Proposed Project on April 2, 2020. However, the tribe did not provide any comments on the Project. Further information on potential Tribal Cultural Resources in the Project Area is provided in Section 4.18 of this IS/MND.

SECTION 3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture and Forestry Resources	☐ Hazards/Hazardous Materials	☐ Recreation
☒ Air Quality	☒ Hydrology/Water Quality	☐ Transportation
☒ Biological Resources	☐ Land Use and Planning	☒ Tribal Cultural Resources
☒ Cultural Resources	☐ Mineral Resources	☐ Utilities and Service Systems
☐ Energy	☒ Noise	☐ Wildfire
☒ Geology and Soils	☐ Population and Housing	☒ Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. ☒

I find that the Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

I find that the Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Project, nothing further is required. ☐

December 4, 2020

Russ Wenham
Director of Engineering and Development

Date

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SECTION 4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

The Project site is situated in an area of the City with a mixture of residential, commercial, industrial, public facilities and rural uses. The Project site is surrounded by a single-family subdivision to the northeast, east and southeast, while vacant land exists to the northwest. SR 273 and railroad tracks are immediately to the west/southwest of the site. See *Figure 3*. The City of Anderson General Plan Open Space and Conservation Element identifies scenic resources in Anderson. These resources include predominant natural landscape features of the Sacramento River and views of surrounding mountains including Mount Shasta to the north and Mount Lassen to the east. Trees and landscaping are also a valuable scenic resource according to the General Plan (Anderson 2007a).

The General Plan provides the following policies for the protection of scenic resources in the City.

SRP-1: Encourage preservation and enhancement of views of the Sacramento River and Mount Shasta and Mount Lassen to the extent possible.

SRP-2: New development and redevelopment along the Sacramento River and throughout the City should take advantage of view opportunities.

SRP-3: Encourage preservation of trees and landscaping as a scenic resource.

Visual Character of the Project Site

The Project site is relatively flat with elevations between 416 and 425 feet above AMSL for the 9.4-acre site. The Project site is located between a four-lane state highway and a railroad track and Tormey Drain. The site is primarily composed of disturbed annual grassland with patches of trees and shrubs. An unnamed drainage occurs along the eastern/southeastern boundary and flows offsite into Tormey Drain, which runs parallel to the northern boundary of the Project site. Only the portion of the drainage within the southeastern corner of the Project site is lined by a dense tree canopy composed of valley oaks, with the remainder of the drainage being largely void of tree canopy. Riparian and wetland vegetation occur within the banks of this drainage.

State Scenic Highways

The California Scenic Highway Program protects and enhances the scenic beauty of California's highways and adjacent corridors. A highway can be designated as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view. There are no officially designated state scenic highways within the City of Anderson (California Department of Transportation [Caltrans] 2020).

4.1.2 Aesthetics (I) Environmental Checklist and Discussion

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?	☐	☐	☒	☐

The City of Anderson identifies views of the surrounding mountains and the Sacramento River as designated scenic vistas. The General Plan includes Policies SPR-1 and SPR-2 aimed at preserving scenic views. Additionally, Policy SPR-3 assists in the preservation of trees and landscaping as a scenic resource in the city.

Other than the construction of the extension of East Street and mass site grading, the Proposed Project includes no development and therefore would not result in adverse effects on a scenic vista, in and of itself. However, future development of these properties may result in potential impacts from building interference to scenic vistas. Compliance with these General Plan policies would allow for the protection of scenic vistas and would therefore reduce the potential for a substantial adverse effect on a scenic vista. As such, the Project will have a less than significant impact on a scenic vista.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

The Proposed Project is not located within the vicinity of an officially designated scenic highway. No impact would occur.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c)	In a non-urbanized area substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality	☐	☐	☒	☐

The Proposed Project is in an urbanized area and, if approved, would not conflict with zoning. The extension of East Street is shown as a proposed collector street in the City's General Plan. Therefore,

construction of the East Street extension would be consistent with the future design of the city's circulation system. The Proposed Project, in and of itself, would not result in changes to the visual character of the existing site, as no development is proposed, other than East Street. All future development which may be constructed as a result of approval of the Proposed Project (General Plan amendment, rezone, and/or TPM) will be required to comply with the City's design review process. Compliance with General Plan Policies SRP-1, SPR-2, and SPR-3 will be considered by the City, and future projects would be analyzed for conformance with these policies through the design review process. Therefore, the Project would have a less than significant impact on scenic quality on the site and surrounding area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

The Proposed Project does not include the development of any commercial uses, and in and of itself, would not create new sources of light or glare. However, as shown in Table 2.1-2, the approval of the Project would result in a General Plan amendment and rezone allowing an increase of up to 69,438 square feet of commercial space over existing conditions. Approval of the Project would also result in a decrease of up to 116 residential units. The development of commercial property for heavy commercial uses would result in the increase of light and glare into an area that is currently vacant land. However, light and glare are considered as part of the City-required design review process for new projects; any light and glare affects would be reduced to the level consistent with City standards. Additionally, the Anderson Municipal Code provides for the mitigation of potential light and glare impacts from parking lots. Section 17.46.030(G) requires parking lot lighting be directed away from residential areas and public streets so as not to produce a glare as seen from such areas in order to ensure the general safety of other vehicular traffic and the privacy and well-being of the residential areas.

Compliance with the City of Anderson Design Review and Municipal Code requirements will ensure that future development would not create a new source of substantial light glare. As such, the Project would have a less than significant impact in this area.

4.1.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

The California Department of Conservation (DOC) manages the Farmland Mapping and Monitoring Program, which identifies and maps significant farmland. Farmland is classified using a system of five

categories including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. The classification of farmland as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance is based on the suitability of soils for agricultural production, as determined by a soil survey conducted by the Natural Resources Conservation Service (NRCS). The California DOC manages the California Important Farmland Finder, an interactive website program that identifies the Project site as being within an area of Grazing land. This site is not under a Williamson Act contract. All land surrounding the Project site is identified as Urban and Built Up Land (DOC 2020).

The Project site is located in an urban area and does not contain possible forest or timber resources.

4.2.2 Agriculture and Forestry Resources (II) Environmental Checklist and Discussion

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?	☐	☐	☐	☒

The DOC identifies the Project site as Grazing Land. As the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

This site is in an urbanized city and is not subject to a Williamson Act contract. The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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),	☐	☐	☐	☒

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				

The Project site is not located in a forestland protection or timber production area. The Project would have no impact in this area.

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

No identified forest lands exist on the Project site or within the vicinity of the Project. The Project would have no impact in this area.

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No existing agricultural uses are adjacent to the Project site, therefore the Project would not result in the conversion of farmland to non-agricultural. No forest land exists within the Project vicinity. The Project would have no impact in this area.

4.2.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.3 Air Quality

4.3.1 Environmental Setting

The Project Area is located within Shasta County, in the City of Anderson. The California Air Resource Board (CARB) has divided California into regional air basins according to topographic features. Anderson is located within the Northern Sacramento Valley Air Basin (NSVAB), which is subject to the regulatory authority of the SCAQMD. The NSVAB is bounded on the north and west by the Coastal Mountain Range

and on the east by the southern end of the Cascade Mountain Range and the northern end of the Sierra Nevada. These mountain ranges reach heights in excess of 6,000 feet AMSL, with individual peaks rising much higher. The mountains form a substantial physical barrier to locally created pollution as well as to pollution transported northward on prevailing winds from the Sacramento metropolitan area (Sacramento Valley Air Quality Engineering and Enforcement Professionals [SVAQEEP] 2018).

The environmental conditions of Shasta County are conducive to potentially adverse air quality conditions. The basin area traps pollutants between two mountain ranges to the east and the west. This problem is exacerbated by a temperature inversion layer that traps air at lower levels below an overlying layer of warmer air. Prevailing winds in the area are generally from the south and southwest. Sea breezes flow over the San Francisco Bay Area and into the Sacramento Valley, transporting pollutants from the large urban areas. Growth and urbanization in Shasta County have also contributed to an increase in emissions.

Both the U.S. Environmental Protection Agency (USEPA) and CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O_3) (O_3 precursor emissions include nitrogen oxide [NO_x] and reactive organic gases [ROG]), carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The Shasta County portion of the NSVAB region is designated as a nonattainment area for the state standard for O_3.

4.3.2 Regulatory Framework

Shasta County Air Quality Management District

The local air quality agency affecting the NSVAB is the SCAQMD, which is charged with the responsibility of implementing air quality programs and ensuring that national and state ambient air quality standards are not exceeded and that air quality conditions are maintained in the NSVAB. In an attempt to achieve national and state ambient air quality standards and maintain air quality, the air district has completed several air quality attainment plans and reports, which together constitute the State Implementation Plan for the portion of the NSVAB encompassing the Project.

The SCAQMD is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. The SCAQMD, along with other air districts in the NSVAB, has committed to jointly prepare and implement the *NSVAB Air Quality Attainment Plan* for the purpose of achieving and maintaining healthful air quality throughout the air basin. The plan is updated on a triennial basis and was last updated in 2018. In addition, the SCAQMD adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs, and it regulates agricultural burning. Other responsibilities include monitoring air quality, preparing clean air plans, and responding to citizen complaints concerning air quality.

All projects in Shasta County are subject to applicable SCAQMD rules and regulations in effect at the time of construction. Descriptions of specific rules applicable to construction resulting from implementation of the Proposed Project may include, but are not limited to the following:

- *SCAQMD Rule 2-1A, Authorities to Construct/Permits to Operate*, allows any person to use construction equipment for construction activities, and must obtain a permit to operate prior to installation activities.
- *SCAQMD Rule 3-2, Specific Air Contaminants*, controls the amount of air contaminants allowed to be discharged into the atmosphere.
- *SCAQMD Rule 3-31, Architectural Coatings*, controls architectural coatings and solvents used at the Project.
- *SCAQMD Rule 3-15, Cutback and Emulsified Asphalt* controls compliance with Cutback and emulsified asphalt application.
- *SCAQMD Rule 3-16, Fugitive, Indirect, or Non-traditional Sources*, controls the emission of fugitive dust during earth-moving, construction, demolition, bulk storage, and conditions resulting in wind erosion.

Shasta County Air Quality Management District CEQA-Level Thresholds of Significance

SCAQMD significance thresholds are used to determine air quality impacts in this analysis. These thresholds are consistent with New Source Review Rule 2-1 adopted by the SCAQMD Board in 1993, as required by the California Clean Air Act (CCAA). The thresholds of significance are summarized in Table 4.3-1.

Table 4.3-1. Shasta County Air Quality Management District Thresholds of Significance – Pounds per Day

Threshold	NO_x	ROG	PM_{10}
Level A Thresholds	25	25	80
Level B Thresholds	137	137	137

The SCAQMD recommends that projects apply Standard Mitigation Measures (SMM) and appropriate Best Available Mitigation Measures (BAMM) when a project exceeds Level A thresholds and SMM, BAMM, and special BAMM when a project exceeds Level B thresholds. Projects that cannot mitigate emissions to levels below the Level B thresholds are considered significant. Based on these standards, the effects of the Proposed Project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

4.3.3 Air Quality (III) Environmental Checklist and Discussion

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?	☐	☐	☐	☒

Under state law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date. As previously stated, the Shasta County portion of the NSVAB is classified nonattainment for the state O_3 standard.

The *2018 Air Quality Attainment Plan* is the most recent air quality planning document covering Shasta County. Air quality attainment plans are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls describing how the state will attain ambient air quality standards. State law makes CARB the lead agency for all purposes related to the *Air Quality Attainment Plan*. Local air districts prepare air quality attainment plans and submit them to CARB for review and approval. The *2018 Air Quality Attainment Plan* includes forecast ROG and NO_X emissions (O_3 precursors) for the entire NSVAB through the year 2020. The plan also includes control strategies necessary to attain the California O_3 standard at the earliest practicable date, as well as developed emissions inventories and associated emissions projections for the region showing a downtrend for both ROG and NO_X.

Implementation of the Project would result in the construction of the East Street extension on the Project site and site grading as well as, future commercial or heavy commercial development. Such development would result in long-term emissions from area and mobile emission sources, which could conflict with air quality planning in the *2018 Air Quality Attainment Plan*. The consistency of the Project with the *2018 Air Quality Attainment Plan* is determined by Project-induced development's consistency with air pollutant emission projections in the plan. The *2018 Air Quality Attainment Plan* relies on control measures promulgated by all participating counties, including Shasta County, to meet emission reduction targets.

As described previously, any future development induced by the Project would be subject to applicable SCAQMD rules and regulations in effect at the time of construction. Descriptions of specific rules applicable to construction resulting from implementation of the Proposed Project are described above.

Future development would be required to comply with all applicable measures. Future development would meet the SCAQMD emission reduction requirements for construction after mitigation. As shown in Table 4.3-3, the Project-induced future development would not exceed operational emissions thresholds. As such, the Proposed Project would not conflict with achievement of ROG and NOx (ozone precursor) emission reduction goals. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) 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?	☐	☐	☒	☐

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

As explained previously, the Proposed Project, would result in the construction of the East Street extension and site grading but does not propose any other construction. However, approval of the Project by the City, may result in future commercial or heavy commercial development. Project emissions modeling has been conducted consistent with the land use analyzed in the Traffic Impact Review prepared for the Project (GHD 2020). The air quality impacts account for both construction activities and operation of the potential future uses on the Project site. For purposes of impact assessment, air quality impacts have been separated into construction impacts and operational impacts.

Construction Emission Impacts

Construction associated with the Project-induced development would generate short-term emissions of criteria air pollutants, including ROG, CO, NO_X, PM_{10}, and $PM_{2.5}$. The largest amount of ROG, CO, and NO_X emissions would occur during the earthwork phase. PM_{10} and $PM_{2.5}$ emissions would occur from fugitive dust (due to earthwork and excavation) and from construction equipment exhaust. Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the Project site, emissions produced onsite as the equipment is used, and emissions from trucks transporting materials to and from the site. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact.

Construction-generated emissions associated with the potential Project-induced development were calculated using the CARB-approved California Emissions Estimator Model (CalEEMod) computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Appendix A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the potential Project-induced development are summarized in Table 4.3-2. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a

significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Table 4.3-2. Unmitigated Construction-Related Emissions

Construction Year[1]	Pollutant (pounds per day)[2]				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction in Year One	11.84	40.55	38.87	18.21	11.85
Construction in Year Two	11.41	32.87	38.06	2.94	1.78
Level A Significance Threshold	*25*	*25*	*None*	*80*	*None*
Exceed Level A Threshold	**No**	**Yes**	**No**	**No**	**No**
Level B Significance Threshold	*137*	*137*	*None*	*137*	*None*
Exceed Level B Threshold?	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Appendix A for Model Data Outputs.
Notes: 1) Start of construction is assumed to be in the summer of 2021 for modeling purposes only. Actual construction for future uses is unknown at this time.
2) Building construction, paving, and painting assumed to occur simultaneously. Emissions taken from summer or winter, whichever is higher.

As shown in Table 4.3-2, daily emissions associated with the construction of the potential Project-induced development would exceed the Level A significance threshold for NO_X emissions. No pollutants would surpass the Level B significance thresholds during the assumed construction period. As previously described, a project that is projected to generate emissions above the Level A thresholds is required to apply appropriate BAMM, in addition to SMM. Thus, mitigation measure **AQ-1** is required, which contains measures to reduce NO_x emissions, the pollutant that exceeds the Level A threshold, from construction equipment. Per the recommendations of the SCAQMD, implementation of mitigation measure **AQ-1** would reduce the potentially significant impacts resulting from construction-generated emissions. Additionally, Mitigation Measure **AQ-1** includes various dust control measures (as support to SCAQMD Rule 3-16) to reduce fugitive PM_{10} and $PM_{2.5}$, such as regular watering of disturbed areas, providing track-out devices that reduce soil from trucks being 'tracked' onto adjacent roadways, covering stockpiles, and limiting onsite vehicle speeds.

Implementation of Mitigation Measure **AQ-1** would be required as part of any grading permit issued for future Project-induced development. The most potent emission-reducing component of Mitigation Measure **AQ-1** includes the requirement to employ the use of CARB Tier 3 and Tier 4 Certified construction equipment. The Clean Air Act (CAA) of 1990 directed the USEPA to study, and regulate if warranted, the contribution of off-road internal combustion engines to urban air pollution. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-

road diesel engines was signed between the USEPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the USEPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 horsepower and increasingly more stringent Tier 2, Tier 3, and Tier 4 standards for all equipment with phase-in schedules from 2000 to 2015. As a result, all off-road, diesel-fueled construction equipment manufactured from 2006 to 2015 has been manufactured to Tier 3 standards. The Tier 3 standards can reduce NO_x emissions by as much as 64 percent and PM emissions by as much as 39 percent. On May 11, 2004, the USEPA signed the final rule introducing Tier 4 emission standards, which are currently phased-in over the period of 2008-2015. The Tier 4 standards require that NO_x emissions be further reduced by about 90 percent. All off-road, diesel-fueled construction equipment manufactured in 2015 or later will be manufactured to Tier 4 standards.

Impacts from construction-generated air pollutants would be less than significant with the implementation of Mitigation Measure **AQ-1**.

Operational Emissions

Implementation of the Project may result in future commercial or heavy commercial development. Such development would result in long-term operational emissions of criteria air pollutants such as PM_{10}, $PM_{2.5}$, and CO, as well as O_3 precursors such as ROG and NO_X. Future commercial Project-generated increases in emissions would be predominantly associated with motor vehicle use. As mentioned previously, a 70,000-square-foot heavy commercial development is considered in order to conservatively estimate future emissions due to the Project, which is consistent with the Project Traffic Impact Review (GHD 2020). Long-term operational emissions attributable to the Project are identified in Table 4.3-3 and compared to the operational significance thresholds promulgated by the SCAQMD.

Table 4.3-3. Operational-Related Emissions

Emission Source	Pollutant (pounds per day)				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Summer Emissions					
Area	2.04	0.00	0.00	0.00	0.00
Energy	0.03	0.26	0.20	0.02	0.02
Mobile	2.15	14.59	18.79	4.46	1.24
Total:	**4.23**	**14.84**	**19.01**	**4.48**	**1.26**
Winter Emissions					
Area	2.04	0.00	0.00	0.00	0.00
Energy	0.03	0.26	0.20	0.02	0.02
Mobile	1.63	15.00	17.53	4.46	1.25

Table 4.3-3. Operational-Related Emissions

Emission Source	Pollutant (pounds per day)				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Total:	**3.70**	**15.25**	**17.75**	**4.48**	**1.26**
Level A Significance Threshold	*25*	*25*	*None*	*80*	*None*
Exceed Level A Threshold	**No**	**No**	**No**	**No**	**No**
Level B Significance Threshold	*137*	*137*	*None*	*137*	*None*
Exceed Level B Threshold?	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Appendix A for Model Data Outputs.

As shown in Table 4.3-3, daily emissions associated with Project operations would not exceed any significance threshold during operations.

As identified in Table 4.3-3, the Shasta County portion of the NSVAB is listed as a nonattainment area for the state O_3 standard. O_3 is a health threat to persons who already suffer from respiratory diseases and can cause severe ear, nose and throat irritation and increases susceptibility to respiratory infections. Particulate matter can adversely affect the human respiratory system. As shown in Table 4.3-3, Project-induced development would result in increased emissions of ROG, NO_x, and PM_{10}; however, the correlation between a project's emissions and increases in nonattainment days, or frequency or severity of related illnesses, cannot be accurately quantified. The overall strategy for reducing air pollution and related health effects in Shasta County is contained in the 2018 *NSVAB Air Quality Attainment Plan*. The 2018 *NSVAB Air Quality Attainment Plan* provides control measures that reduce emissions to attain state ambient air quality standards by their applicable deadlines such as the application of available cleaner technologies, best management practices, incentive programs, as well as development and implementation of zero and near-zero technologies and control methods. The CEQA thresholds of significance established by the SCAQMD are designed to meet the objectives of the *Air Quality Attainment Plan* and in doing so achieve attainment status with state standards. As noted above, future development due to the Project would increase the emission of these pollutants but would not exceed the thresholds of significance established by the SCAQMD for purposes of reducing air pollution and its deleterious health effects.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of

the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of TACs, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The nearest sensitive receptors to the Project site are single-family residences located immediately to the east and southeast of the Project site.

Short-Term Construction Impacts

Construction-related activities from Project-induced commercial or heavy commercial development would result in temporary, short-term emissions of diesel particulate matter (DPM), ROG, NOx, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the NSAVB which encompasses the Project Area is designated as a nonattainment area for state standards for O_3 (CARB 2018). Thus, existing O_3 NSVAB are at unhealthy levels during certain periods. However, as shown in Table 4.8-1, anticipated future development on the Project site would not exceed the SCAQMD significance thresholds for emissions.

The health effects associated with O_3 are generally associated with reduced lung function. Because the Project-induced development would not involve construction activities that would result in O_3 precursor emissions (ROG or NOx) in excess of the SCAQMD thresholds following implementation of Mitigation Measure **AQ-1**, the Project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The Project would not involve construction activities that would result in CO emissions in excess of the SCAQMD thresholds. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary TAC of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a TAC by the CARB in 1998. The potential cancer risk from the inhalation of DPM outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. Based on the emission modeling conducted, the maximum onsite construction-related (mitigated) daily emissions of exhaust $PM_{2.5}$, considered a surrogate for DPM, would be 1.09 pounds/day (see Appendix A). ($PM_{2.5}$ exhaust is considered a surrogate for DPM because more than 90 percent of DPM is less than one microgram in diameter and therefore is a subset of particulate matter under 2.5 microns in diameter [i.e., $PM_{2.5}$]. Most $PM_{2.5}$ derives from combustion, such as use of gasoline and diesel fuels by motor vehicles.) As with O_3 and NO_x, the Project-induced development would not generate emissions of $PM_{2.5}$ (or PM_{10}) that would exceed the SCAQMD's thresholds. The Project-induced development's $PM_{2.5}$ and PM_{10} emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, the Project would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants.

Impacts associated with exposure of sensitive receptors to substantial pollutant concentrations would be less than significant.

Operational Air Contaminants

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience higher levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the higher traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. In 1993, many portions of California were designated nonattainment under the California Ambient Air Quality Standards and National Ambient Air Quality Standards for CO. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are more stringent requirements for certain vehicles). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated

and efficient emissions control technologies, CO concentration throughout the entire state is now designated as attainment. Detailed modeling of Project-specific CO "hot spots" is not necessary and thus this potential impact is addressed qualitatively.

A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of nine ppm were to occur. The analysis prepared for CO attainment in the South Coast Air Quality Management District's *1992 Federal Attainment Plan for Carbon Monoxide* in Los Angeles County and a Modeling and Attainment Demonstration prepared by the South Coast Air Quality Management District as part of that air district's *2003 Air Quality Management Plan* can be used to demonstrate the potential for CO exceedances of these standards. The South Coast Air Quality Management District conducted a CO hot spot analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (South Coast Air Quality Management District 1992). To establish a more accurate record of baseline CO concentrations, a CO "hot spot" analysis was conducted in 2003 at the same four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards. The highest one-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest eight-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway. (South Coast Air Quality Management District 2003)

Similar considerations are also employed by other air districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour — or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

According to the Traffic Impact Review prepared for the Project (GHD 2020), the 70,000 square foot heavy commercial development (used as a proxy for potential development) is anticipated to generate 780 daily weekday trips on average. This projected amount of traffic is lower than the highest daily traffic volumes at Wilshire Boulevard and Veteran Avenue of 100,000 vehicles per day.

As such, Project-related traffic volumes are less than the traffic volumes identified in the South Coast Air Quality Management District 2003 Air Quality Management Plan. The Project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study or based on representative BAAQMD CO threshold considerations. Therefore, CO "hot spots" are not an environmental impact of concern for the Project. Localized air quality impacts related to mobile source emissions would not be a concern.

The impact is less than significant. No mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

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.

Construction Impacts

During construction, future development presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would result in a less than significant impact related to odor emissions.

Operational Impacts

The land uses generally identified as sources of odors include wastewater treatment plants, wastewater pumping facilities, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing and fiberglass manufacturing facilities, painting/coating operations, rendering plants, coffee roasters, food processing facilities, confined animal facilities, feedlots, dairies, green waste and recycling operations, and metal smelting plants. If a source of odors is proposed to be located near existing or planned sensitive receptors, this could have the potential to cause operational-related odor impacts.

The rezoning of two parcels to C-3 allows for several commercial or heavy commercial by-right uses to later be developed at the site will allow for a variety of commercial uses to be developed on the Project site in the future. Such potential future uses include an automobile parking lot, automobile parts supply store (not including installation, machine shop, repair or a warehouse), cleaning agency or laundry, self-service laundry, dry cleaning, electronic assembly plant (not to include manufacturing), motorcycle sales and service, gasoline service stations, etc. For a complete list of uses permitted by right in the C-3 zoning district, see Section 17.22.020 of the Anderson Municipal Code. None of the potential future uses permitted by-right are considered significant odor-producing uses. As such, the operational impact would be less than significant.

4.3.4 Mitigation Measures

AQ-1: **Construction Dust Control.** Prior to improvement plans approval and issuance of a grading permit for any future development on the Project parcels, including roadway development, the future project applicant shall submit a grading permit application for review and approval by the City of Anderson. The following specifications shall be included on the permit to reduce short-term air quality impacts attributable to the onsite and offsite construction activities:

- Apply nontoxic soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas inactive for ten days or more).
- Reestablish ground cover on the construction site through seeding and watering prior to final occupancy.
- All grading operations of a project shall be suspended when winds (as instantaneous gusts) exceed 20 miles per hour as directed by the AQMD.
- Provide temporary traffic control as appropriate during all phases of construction to improve traffic flow.
- Water active construction sites at twice daily as appropriate.
- All truck of construction materials shall comply with the requirements of California Vehicle Code (CVC) Section 23114. This provision is enforced by local law enforcement agencies.
- Sweep streets anytime sediment is tracked from the project site (recommend water sweeper with reclaimed water).
- All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved roads.

Timing/Implementation: *Prior to issuance of a grading permit*

Monitoring/Enforcement: *The City of Anderson*

4.4 Biological Resources

Gallaway Enterprises conducted a Biological Resources Assessment (BRA) for the Proposed Project (Gallaway Enterprises 2020b). The purpose of the BRA was to document the endangered, threatened, sensitive, and rare species that occur or may occur in the biological survey area (BSA) of the Project. The following information was excerpted from the BRA. The BRA is included as Appendix B1 of this IS/MND.

4.4.1 Environmental Setting

For the purposes of the BRA, the BSA is the area in which biological surveys are conducted. The BSA includes all areas to be affected directly or indirectly by the Project, and not merely the immediate area within the Project boundary. See *Figure 6. Biological Survey Area*.

The Project site is located within the northern Central Valley of California in the City of Anderson. The site is primarily composed of disturbed annual grassland habitat. There is one drainage in the eastern portion of the Project site that provides riverine habitat. The drainage is part of a system of two drainages, the confluence of which occurs outside of the Project boundary. Valley foothill riparian habitat occurs along the banks of the drainage. There are two seasonal wetlands present within the BSA, which could provide lacustrine habitat when ponded.

The site abuts a railroad easement and a large, worn dirt access road runs from northwest to southeast through the middle of the BSA. It is evident that the land had been historically scraped and there are multiple old elevated dirt access roads present which provide barren habitat within the BSA.

The average annual precipitation is 33.68 inches and the average annual temperature is 62.45 degrees Fahrenheit (°F) in the region where the BSA is located. The BSA occurs at an elevation of approximately 420 feet AMSL. The site is sloped between 0 and 3 percent. Soils within the site were gravelly loams with a restrictive layer occurring more than 80 inches deep.

Vegetation Communities

Annual Grassland

Annual grassland is the dominant habitat type comprising the majority of the BSA. Species observed in the annual grassland within the BSA included Spanish lotus (*Acmispon americanus*), wild oats (*Avena* sp.), curly dock (*Rumex crispus*), soft chess (*Bromus hordeaceous*), Bermuda grass (*Cynodon dactylon*), and rose clover (*Trifolium hirtum*). This habitat type provides foraging ground for a variety of wildlife species and breeding habitat for terrestrial reptiles, mammals, and ground-nesting birds.

Valley Foothill Riparian

The valley foothill riparian habitat within the BSA is composed primarily of valley oaks (*Quercus lobata*) lining the unnamed drainage within the BSA, with an understory composed of Himalayan blackberry (*Rubus armeniacus*). According to the BRA, valley foothill riparian habitat functions as wildlife migration and dispersal corridors, escapement and nesting areas, and provides food, shelter, and water for a variety of species of resident and migrating wildlife species.

Aquatic Habitat

Riverine

Riverine habitats include both rivers and streams from ephemeral to perennial. Within the BSA, there is one drainage that is considered riverine habitat. This drainage is a storm water ditch that drains into the Tormey Drain. Flowing water was observed within the drainage during the September and February site visits, indicating the presence of intermittent to perennial flows. Like many streams and canals in the Central Valley, the drainage within the BSA is characterized by relatively warm temperatures, slow moving water, and mud bottoms. The drainage was approximately 17.3 feet wide and shallow; about four to six inches deep. This habitat type provides food for waterfowl, herons (*Ardeidae* sp.), and many species of insectivorous birds, hawks, and their prey.

Lacustrine

Lacustrine habitats are inland depressions or dammed riverine channels containing standing water. The seasonal wetlands present in the BSA may provide lacustrine habitat when inundated with water during the wet season. The wetland features were dry during both site visits and are dry during the summer and fall months. The lack of tall, emergent wetland vegetation within the wetland features indicates that the duration of ponding is short. The seasonal wetlands are vegetated with species including rye-grass (*Festuca perennis*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), and curly dock. The relatively calm waters of lakes and ponds offer unique environmental conditions that contrast with that of running water. Lacustrine habitat provides breeding and foraging habitat for a number of amphibians, reptiles, and birds.

Non-vegetated Habitat

Barren

Barren habitat is typified by non-vegetated soil, rock, paved roads, and gravel. There are dirt and gravel access roads within the BSA. The barren habitat type provides low quality habitat to wildlife. Some ground-nesting birds, such as killdeer (*Charadrius vociferus*), may utilize barren habitat for nesting.

Critical Habitat

There is no critical habitat within the BSA.

Sensitive Natural Communities

There are no designated SNCs within the BSA.

Map Date:10/16/2020
Photo (or Base) Source:Gallaway Enterprises 2020

Figure 6. Biological Survey Area

2020-157 Anderson East Street

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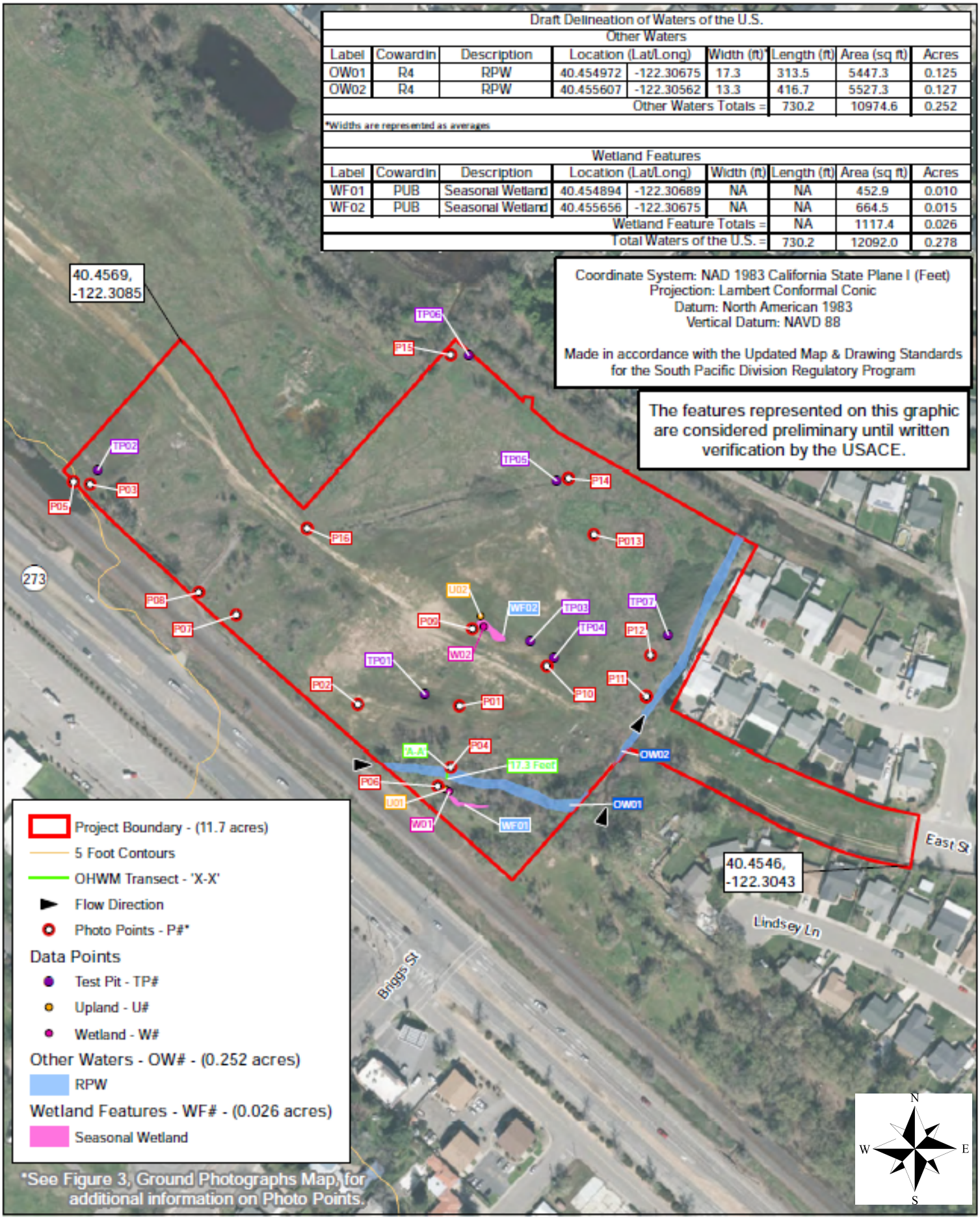

Map Date: *10/16/2020*
Photo (or Base) Source: *Gallaway Enterprises 2020*

Figure 7. Wetland Delineation

2020-157 Anderson East Street

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Potential Aquatic Resources/Waters of the U.S.

As identified in the Delineation of Jurisdictional Waters completed by Gallaway Enterprises (2020a), ±0.278 acres of waters that potentially fall under the U.S. Army Corp of Engineers (USACE) jurisdiction were identified within the BSA (*Figure 7. Wetland Delineation Area*). The potentially jurisdictional waters include two drainages and two seasonal wetlands (WF-01 and WF-02). No additional waters were identified within the BSA. A draft wetland delineation report and map have been prepared and will be submitted by the applicant to the USACE for verification.

4.4.2 Evaluation of Potentially Occurring Special-Status Species

A summary of special-status species assessed for potential occurrence within the BSA based on the U.S. Fish and Wildlife Service (USFWS) IPaC species list, California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB) query for the 7.5 minute U.S. Geological Survey (USGS) Cottonwood quadrangle, and the California Native Plant Society (CNPS) list of rare and endangered plants within the 7.5 minute USGS Cottonwood, Balls Ferry, Hooker, Mitchell Gulch, Olinda, Bend, Redding, Enterprise, and Palo Cedro quadrangles and their potential to occur within the BSA are described in Table 1 of the BRA. Potential for occurrence was determined by reviewing database queries from federal and state agencies and evaluating habitat characteristics. Species with some potential to occur, as determined by the BRA, are listed in Table 4.4-1 below. One invertebrate species, one amphibian, one reptile, two bird species, and one mammal species have low potential or moderate potential to occur on the Project site. These species are discussed further below. Species that were considered to be absent from the Project site due to lack of suitable habitat, or because the known distribution of the species does not include the Project site vicinity, are not discussed further in this document.

A complete list of special-status species known to exist in the region and the results of the database queries are included in the BRA included in Appendix B1.

Table 4.4-1. Potentially Occurring Animal Special-Status Species

Common Name (*Scientific Name*)	Status			Habitat Description	Potential to Occur On-Site
	Fed	State	CNPS		
Invertebrates					
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FE	-	-	Vernal pools and seasonally ponded areas.	Moderate. There is potentially suitable habitat within the seasonal wetland present within the BSA and there are two CNDDB occurrences within 5 miles of the BSA (#365, 387).
Amphibians					
Western spadefoot (*Spea hammondii*)	-	SSC	-	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Intermittent pools are essential for breeding and egg-laying.	Moderate. There is suitable breeding habitat for western spadefoot present in one of the seasonal wetlands (WF 01) and the drainage within the BSA. There are multiple CNDDB occurrences within 5 miles of the BSA.
Reptiles					
Western pond turtle (*Emys marmorata*)	-	SSC	-	Perennial bodies of water with deep pools, locations for haul out, and locations for oviposition.	Moderate. The drainage provides marginal habitat, there were no observations of western pond turtle during the site visit, and the nearest CNDDB occurrence is 4 miles from the BSA.
Birds					
Bald eagle (Haliaeetus leucocephalus)	-	SE, FP	-	Coast, large lakes, and river systems with open forests with large trees and snags near permanent water.	Low. The nearest CNDDB occurrence is within 5 miles of the BSA; however, the nesting habitat present within the BSA is marginal.
Tricolored blackbird (*Agelaius tricolor*)	-	ST	-	Colonial nester in large freshwater marshes. Does most of its foraging in open habitats such as farm fields, pastures, cattle pens, large lawns.	Low. Blackberry bushes provide marginal nesting habitat within the BSA. There are multiple historic CNDDB occurrences within 5 miles of the BSA.
Mammals					
Western red bat (*Lasiurus blossevillii*)	-	SSC	-	Riparian areas dominated by walnuts, oaks, willows, cottonwoods, and sycamores where they roost in these broad-leafed trees.	Moderate. There is suitable roosting and foraging habitat within the valley oak riparian habitat of the BSA.

Status Codes Note:

FE = Federally Endangered
FT = Federally listed as Endangered or Threatened
FC = Federal Candidate Species
SE = State Listed as Endangered
ST= State Listed as Threatened
SC = State Candidate Species
SSC = State Species of Special Concern
FP = State Fully Protected Species
SNC = CDFW Sensitive Natural Community

CNPS California Rare Plant Rank (CRPR):
CRPR 1B = Rare or Endangered in California or elsewhere
CRPR 2 = Rare or Endangered in California, more common elsewhere
CRPR 3 = More information is needed
CRPR 4 = Plants with limited distribution
0.1 = Seriously Threatened
0.2 = Fairly Threatened
0.3 = Not very Threatened

Potential for Occurrence: for plants it is considered the potential to occur during the survey period; for birds and bats it is considered the potential to breed, forage, roost, or over-winter in the BSA during migration. Any bird or bat species could fly over the BSA, but this is not considered a potential occurrence. The categories for the potential for occurrence include:

Low: Potential habitat in the BSA is sub-marginal and/or the species is known to occur in the vicinity of the BSA.

Moderate: Suitable habitat is present in the BSA and/or the species is known to occur in the vicinity of the BSA. Pre-construction surveys may be required.

High: Habitat in the BSA is highly suitable for the species and there are reliable records close to the BSA, but the species was not observed. Pre-construction surveys required, with the exception of indicators for foraging habitat.

Known: Species was detected in the BSA or a recent reliable record exists for the BSA.

Evaluation of Special-Status Plants

A general plant survey and a habitat assessment were conducted within the BSA on September 10, 2019, and February 12, 2020. There were no endangered, threatened, or rare plants observed within or adjacent to the BSA. Further, the habitat assessment identified a lack of suitable habitat for special-status plant species. A complete list of the special-status plant species analyzed in the BRA is provided in Appendix B1.

Evaluation of Special-Status Wildlife

Wildlife habitat assessments were conducted within the BSA on September 10, 2019, and February 12, 2020. Suitable habitat was identified for vernal pool fairy shrimp (*Branchinecta lynchi*) and several avian species protected under the Migratory Bird Treaty Act (MBTA). Potentially suitable habitat for western spadefoot (*Spea hammondii*), western pond turtle (*Emys marmorata*), bald eagle (*Haliaeetus leucocephalus*), tricolored blackbird (*Agelaius tricolor*), and Western red bat (*Lasiurus blossevillii*) was also identified within the BSA.

Vernal Pool Fairy Shrimp

Vernal pool fairy shrimp are federally listed as threatened and are widespread, but not abundant. Known populations occur in California to southern Oregon. The geographic range of this species encompasses most of the Central Valley from Shasta County to Tulare County, and the central coast range from northern Solano County to Santa Barbara County, California. Additional disjunctive occurrences have been identified in western Riverside County, California, and in Jackson County, Oregon, near the city of Medford. The vernal pool fairy shrimp occupies a variety of different vernal pool habitats, from small, clear, sandstone rock pools to large, turbid, alkaline, grassland valley floor pools. Occupied habitats range in size from rock outcrops pools as small as one square meter to large vernal pools up to 12 acres. Smaller vernal pools are the most commonly occupied and are found more frequently in grass or mud bottomed

swales, or basalt flow depression pools in unplowed grasslands. Vernal pool fairy shrimp have been collected from early December to early May.

CNDDB Occurrences

There are multiple CNDDB occurrences within five miles of the BSA (Occurrences #365, 387, 643). These occurrences are all located north of the BSA, on the other side of the Sacramento River, in the vicinity of Stillwater Plains.

Status of Vernal Pool Fairy Shrimp Occurring in the BSA

No protocol-level surveys for branchiopods were conducted within the BSA; however, known CNDDB occurrences of vernal pool fairy shrimp occur within five miles of the BSA and one of the seasonal wetlands (WF 01) within the BSA provides potentially suitable habitat. As such, vernal pool fairy shrimp are assumed to be present within the seasonal wetland (WF 01) present in the BSA. The other seasonal wetland (WF 02) is too shallow and flashy to support vernal pool fairy shrimp.

Western Spadefoot

The western spadefoot toad is a species of special concern (SSC) in California. It is an endemic species of the state. The western spadefoot is distinguishable from other toads by its vertically elliptical pupils, teeth in the upper jaw, smooth skin, and sharp-edged "spades" on the hind feet. Individuals of this species range in size from 1.5 to 2.5 inches. Adults will forage on insects, worms, and other invertebrates. The typical breeding season is from January to May in seasonal pools. Eggs are laid on plant stems or dead plant material in the bottom of pools. Larval development takes from three to 11 weeks and must be completed before pools dry. The western spadefoot is found from Tehama County to San Diego County, typically below 3,000 feet elevation, but has been found as high as 4,500 feet. The biggest threat to the species is loss of habitat and non-native predators. As extant populations of this species become fragmented, threats are more significant and the potential for recolonization is reduced (USFWS 2005).

CNDDB Occurrences

There are multiple CNDDB occurrences within 5 miles of the BSA; however, they are all located north of the BSA on the other side of the Sacramento River.

Status of Western Spadefoot Occurring in the BSA

The BSA contains a seasonal wetland (WF 01) and a drainage that could support breeding habitat for western spadefoot when water is present. The other seasonal wetland (WF 02) is too shallow and flashy to support ponding for the 30 days minimum required for western spadefoot larval development.

Western Pond Turtle

The western pond turtle is a SSC in California. Western pond turtles are drab, darkish colored turtles with a yellow to cream colored head. They range from the Washington Puget Sound to the California Sacramento Valley. Suitable aquatic habitats include slow-moving to stagnant water, such as back waters

and ponded areas of rivers and creeks, semi-permanent to permanent ponds, and irrigation ditches. Preferred habitats include features such as hydrophytic vegetation for foraging and cover and basking areas to regulate body temperature. In early spring through early summer, female turtles begin to move over land in search for nesting sites. Eggs are laid on the banks of slow-moving streams. The female digs a hole approximately four inches deep and lays up to 11 eggs. Afterwards, the eggs are covered with sediment and are left to incubate under the warm soils. Eggs are typically laid between March and August. Current threats facing the western pond turtle include loss of suitable aquatic habitats due to rapid changes in water regimes and removal of hydrophytic vegetation.

CNDDB Occurrences

There is one CNDDB occurrence approximately four miles east of the BSA. This occurrence was from a 2005 observation within Cow Creek.

Status of Western Pond Turtles Occurring in the BSA

Western pond turtles were not observed during the field survey. The drainage within the BSA is narrow and shallow, with densely vegetated banks. There are some exposed banks, but no large emergent rocks or logs to serve as basking areas. There is moderate potential for western pond turtle to occur within the drainage in the BSA.

Bald Eagle

The bald eagle is listed as endangered under the California Endangered Species Act (ESA) and a Fully Protected species by CDFW. It is a bird of aquatic ecosystems, frequenting large lakes, rivers, estuaries, reservoirs, and some coastal habitats. It feeds primarily on fish, but waterfowl, gulls, cormorants, and a variety of carrion may also be consumed. Bald eagles usually nest in trees near water, but may use cliffs in the southwest United States, and ground nests have been reported from Alaska. Adults utilize the same breeding territory, and often the same nest, year after year. They may also use one or more alternate nests within their breeding territory.

The timing and distance of dispersal from breeding territory varies. Individuals that breed in California may make only local winter movements in search of food, staying in the general vicinity of their breeding territory, while others may migrate hundreds of miles to wintering grounds such as the Klamath Basin, remaining there for several months. Eagles seek wintering (non-nesting) areas offering an abundant and readily available food supply with suitable night roosts that typically offer isolation and thermal protection from winds.

CNDDB Occurrences

There is one CNDDB occurrence within 5 miles of the BSA. This was a nesting occurrence located approximately four miles northwest of the BSA, adjacent to the Sacramento River. Fledglings were observed in 2006 and 2007.

Status of Bald Eagle Occurring in the BSA

The BSA is located approximately one mile away from the Sacramento River, which could provide suitable foraging habitat for bald eagle. There are some large trees present within the BSA that could potentially support bald eagle nesting.

Tricolored Blackbird

Tricolored blackbirds are listed as threatened under the California ESA. They range from southern Oregon through the Central Valley, and coastal regions of California into the northern part of Mexico. Tricolored blackbirds are medium-size birds with black plumage and distinctive red marginal coverts, bordered by whitish feathers. Tricolored blackbirds nest in large colonies within agricultural fields, marshes with thick herbaceous vegetation, or in clusters of large blackberry bushes near a source of water and suitable foraging habitat. The natural habitat for tricolored blackbird is permanent to semi-permanent wetlands or marsh with tall vegetation for nesting, but will use agricultural land as a substitute in many cases. Tricolored blackbirds exhibit itinerant breeding (occupying and breeding at two or more sites during a breeding season) and have a general pattern of first nesting in the San Joaquin Valley and then making a second nesting attempt often in the northern Sacramento Valley.

They are nomadic migrators, so documenting occurrence at any location does not mean that they will necessarily return to that area. Current threats facing tricolored blackbirds include colonial breeding in regard to small population size, habitat loss, overexploitation, predation, contaminants, extreme weather events, and drought, water availability, and climate change (CDFW 2018).

CNDDB Occurrences

There are multiple CNDDB occurrences of tricolored blackbird within five miles of the BSA. The closest occurrence is less than one mile to the southeast of the BSA (CNDDB Occurrence # 811). This occurrence was originally from 1932 and an updated survey in 2014 was not able to confirm the presence of nesting birds or even that this survey was conducted in the original location of the 1932 observation. Other CNDDB occurrences within five miles of the BSA are from the 1930s or assumed the presence of nests, with the exception of #246 and #441. Occurrence #246 is located 2.5 miles north of the BSA and documented nesting in 1995; however, no tricolored blackbirds were observed at this location during subsequent surveys in 2008 and 2014. Occurrence #441 is located three miles southeast of the BSA in a wetland area and nesting was documented in 2006, which is the most recent documented nesting record within five miles of the BSA.

Status of Tricolored Blackbird Occurring in the BSA

No tricolored blackbirds were observed during site visit; however, marginal nesting habitat occurs within the Himalayan blackberry bushes that line the drainage in the BSA, the drainage provides an open water source, and suitable foraging habitat occurs within the open annual grasslands within the BSA. Tricolored blackbirds are nomadic breeders and do not exhibit site fidelity. They are also colonial nesters that generally nest in large colonies. Breeding colonies are seldom smaller than 100 nests; however, the blackberry bushes within the BSA could potentially support a small colony (CDFW 2018).

Western Red Bat

Western red bat is designated as an SSC. Western red bats are typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores). Roost sites are generally hidden from view from all directions except below; lack obstruction beneath, allowing the bat to drop downward for flight; lack lower perches that would allow visibility by predators; have dark ground cover to minimize solar reflection; have nearby vegetation to reduce wind and dust; and are generally located on the south or southwest side of a tree. Red bats generally begin to forage one to two hours after sunset. Although some may forage all night, most typically have an initial foraging period corresponding to the early period of nocturnal insect activity, and a minor secondary activity period corresponding to insects that become active several hours before sunrise. Red bats mate in late summer or early fall. Females become pregnant in spring and have a pregnancy of 80-90 days. Females may have litters of up to five pups per year. This species is considered to be highly migratory. Although generally solitary, red bats appear to migrate in groups and forage in close association with one another in summer. The timing of migration and the summer ranges of males and females seem to be different. Winter behavior of this species is poorly understood.

CNDDB Occurrences

There is one CNDDB occurrence of western red bat located immediately southeast of the BSA at the intersection of Balls Ferry Road and SR 99 (#48). One juvenile female western red bat was captured by hand in 1999. There are no other occurrences within five miles of the BSA.

Status of Western Red Bat Occurring in the BSA

Oak and other broadleaf trees occur within the BSA and provide suitable roosting habitat for western red bat. Western red bats are closely associated with riparian habitat, which occurs within the BSA; therefore, there is moderate potential for western red bat to occur within the BSA.

Evaluation of Migratory Birds and Raptors

Nesting birds are protected under the MBTA (16 U.S. Code (USC) §703) and the California Fish and Game Code (§3503). The MBTA prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e., exotic) species (50 CFR §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance have the potential to affect bird species protected by the MBTA. The California Fish and Game Code (§ 3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The California Fish and Game Code (§3503) also states that "it is unlawful to take, possess, or

needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

CNDDB Occurrences

The majority of migratory birds and raptors protected under the MBTA and California Fish and Game Code are not recorded on the CNDDB because they are abundant and widespread.

Status of Migratory Birds and Raptors Occurring in the BSA

There is suitable nesting habitat for a variety of ground, shrub, and tree nesting avian species within and adjacent to the BSA.

4.4.3 Biological Resources (IV) Environmental Checklist and Discussion

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?	☐	☒	☐	☐

According to the BRA completed by Gallaway Enterprises (2020b), the Project site is potential habitat for numerous special status species. The Project site may serve as habitat for a special-status invertebrate: the vernal pool fairy shrimp, a special statue amphibian: the western spadefoot, and a special statue reptile: the western pond turtle. Furthermore, the Project site provides nesting habitat for two special-status bird species, the bald eagle and tricolored blackbird. The Project site also provides nesting habitat for bird species protected under the MBTA. Finally, the Project site may serve as suitable roosting habitat for western red bat. As such, Mitigation Measures **BIO-1** through **BIO-5** are incorporated to mitigate these impacts. Impacts to special-status species would be less than significant with mitigation incorporated.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

According to the BRA, there are valley foothill riparian habitat, and riverine and lacustrine aquatic habitats within the BSA. However, there are no designated sensitive natural communities or critical habitat within

the BSA. As such, there would be a less than significant impact to riparian habitat or other sensitive natural communities.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐

Approximately 0.278 acres of Waters of the U.S. that potentially fall under the USACE jurisdiction were identified within the BSA (*Figure 5*). The potentially jurisdictional waters include two drainages and two seasonal wetlands. While no building construction is proposed as a part of the Project, construction of the extension of East Street on the Project site, including the crossing of the unnamed channel and site grading would occur. Therefore, the potential for impacts to Waters of the U.S., in the short-term as well as, future commercial or heavy commercial construction activities may occur as a result of approval of the Project. As such, mitigation for this potential impact must be included. Implementation of Mitigation Measure **BIO 6**, would reduce the potential impact to Waters of the U.S. to a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☒	☐	☐

The Project site is located in a disturbed area between existing residential uses, industrial uses, SR 273, and railroad tracks. No water bodies occur onsite that would have the potential for migratory fish. However, the BSA contains trees that may serve as marginal roosting habitat for the western red bat and nesting habitat for special-status bird species, as well as birds protected under the MBTA and the California Fish and Game Code. The Project Area may also serve as foraging habitat for these bird species. As such, Mitigation Measures **BIO-4, BIO-5** and **BIO-7** are required to reduce potential impacts to migratory and nesting birds, and roosting bats. With implementation of these mitigation measures, there will be a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

There are a number of trees located on the Project site. Trees are protected in the City though General Plan Policy BRP-7, which requires that trees be preserved where possible and the loss of trees to be removed shall be mitigated for this loss. Implementation measure BRI-7 requires that tree removal be compensated by the planting of street, parkland, recreational area or other urban area tree or other appropriate means of conservation.

Future development of the Project site may result in the removal for trees. Per General Plan Policy BRP-7, compensation for this loss is required. As such, Mitigation Measure **BIO-7** has been included to mitigate for the loss. With implementation of this mitigation measure, there will be a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

There are currently no adopted or proposed habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans that affect the Proposed Project. The Project would have no impact in this area.

4.4.4 Mitigation Measures

BIO-1: **Vernal Pool Fairy Shrimp.** Vernal pool fairy shrimp are federally listed as threatened. Due to its location and the potential for impact during roadway construction, grading and future development on and near seasonal wetland (WF 01), all vernal pool fairy shrimp located in WF 01 will be lost. As such, consultation with the USFWS and mitigation for impacts to this species acceptable to USFWS, in combination with the requirements of mitigation measure BIO-6, shall be required.

Timing/Implementation: *Prior to commencement of any future construction*

Monitoring/Enforcement: *The City of Anderson*

BIO-2: **Western Spadefoot.** To minimize impacts to western spadefoot, the following avoidance and minimization measures shall be implemented prior to any future construction activities:

- Clearance surveys shall be conducted immediately prior to the initiation of work when water is present within the Project site. Should any life stages of western spadefoot be found, they shall be relocated to appropriate habitat by a qualified biologist.

Timing/Implementation: *Prior to commencement of construction and during construction*

Monitoring/Enforcement: *The City of Anderson*

BIO-3: **Western Pond Turtle.** To minimize impacts to western pond turtle, the following avoidance and minimization measures shall be implemented prior to any future construction activities:

- Immediately prior to conducting work within western pond turtle habitat, a qualified biologist shall conduct a western pond turtle clearance survey.
- A qualified biologist shall be onsite during all vegetation removal within western pond turtle habitat and during the installation or removal of water diversions.
- If western pond turtles are identified in an area where they will be impacted by Project activities, then the biologist shall relocate the turtles outside of the work area or create a species protection buffer (determined by the biologist) until the turtles have left the work area.
- Before initiating any ground disturbances, restrictive silt fencing shall be installed along the boundaries of the construction area to prevent western pond turtle from entering the construction site from the adjacent aquatic settings and to prevent construction equipment and personnel from entering sensitive habitat from the construction site**.**

Timing/Implementation: *Prior to commencement of construction and during construction*

Monitoring/Enforcement: *The City of Anderson*

BIO-4: **Special-Status and Migratory Bird Treaty Act Birds.** To avoid impacts to avian species protected under the MBTA and the California Fish and Game Code the following avoidance and minimization measures shall be implemented prior to any future construction activities:

- Project activities including site grubbing and vegetation removal shall be initiated outside of the bird nesting season (the nesting season is defined as: February 1 – August 31).
- If Project activities cannot be initiated outside of the bird nesting season, then the following shall occur:

- A qualified biologist shall conduct a pre-construction survey within 250 feet of the BSA, where accessible, within 7 days prior to the start of Project activities.
- If an active nest (i.e., containing egg(s) or young) is observed within the BSA or in an area adjacent to the BSA where impacts could occur, then a species protection buffer shall be established. The species protection buffer shall be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored by a qualified biologist once per week and a report submitted to the City of Anderson weekly.

Timing/Implementation: *Prior to commencement of construction and during construction*

Monitoring/Enforcement: *The City of Anderson*

BIO-5: **Western Red Bats:** To minimize impacts to bat species protected by the California Fish and Game Code, the following avoidance and minimization measures shall be implemented prior to any future construction activities:

- If mature trees are removed or trimmed the removal or trimming activity shall be performed between September 16 and March 15 (outside of the bat maternity season).

Timing/Implementation: *Prior to commencement of construction and during construction*

Monitoring/Enforcement: *The City of Anderson*

BIO-6: **Waters of the United States.** If future construction activities occur within the ordinary high water mark and/or result in fill or discharge to any waters of the United States which include but are not limited to, intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, vernal pools or natural ponds, then the following shall be obtained:

- Prior to any discharge or fill material into waters of the United States, authorization under a Nationwide Permit or Individual Permit shall be obtained from the Corps (Clean Water Act §404). For fill requiring a Corps permit, a water quality certification from the Regional Water Quality Board (Clean Water Act §401) shall also be obtained prior to discharge of dredged or fill material.
- Prior to any activities that would obstruct the flow of or alter the bed, channel, or bank of any perennial, intermittent or ephemeral creeks, notification of streambed alteration shall be submitted to the CDFW, and, if required, a Lake and Streambed Alteration Agreement (CFGC §1602) shall be obtained.

Mitigation requirements for the fill of Waters of the United States shall be implemented through an onsite restoration plan, and/or an In Lieu Fund and/or a certified mitigation bank with a service area that covers the Project Area.

Timing/Implementation: *Prior to commencement of construction and during construction*

Monitoring/Enforcement: *The City of Anderson*

BIO 7: **Tree Removal.** Trees shall be preserved where possible and the loss of trees to be removed shall be mitigated on a one to one ratio or another ratio acceptable to the City. Per General Plan Implementation BRI-7, tree removal can be compensated by the planting trees adjacent to the railroad right of way or along Tormey Drain.

Prior to any issuance of grading or building permits for any site with blue oaks or heritage trees, the trees shall be mapped on a tree removal mitigation plan and shall be approved by the City of Anderson.

Timing/Implementation: *Prior to any issuance of grading or building permits*

Monitoring/Enforcement: *The City of Anderson*

4.5 Cultural Resources

4.5.1 Cultural Resources Inventory Survey

A Cultural Resources Inventory Survey was prepared by Genesis Society (2019) for the Proposed Project to determine if cultural resources were present in or adjacent to the Project Area and assess the sensitivity of the Project Area for undiscovered or buried cultural resources. The following information was excerpted from the Genesis Society report.

The Cultural Resources Inventory Survey consisted of: a records search with the California Historical Resources Information System (CHRIS) at the Northeast Information Center (NEIC); a search of the Sacred Lands File of a Native American Heritage Commission (NAHC); a review of historic maps, photographs, records on file with the Office of Historic Preservation (OHP); ethnographic information; literature pertaining to the Project Area and surrounding region; a review of geological and soils data; and pedestrian survey by qualified professionals.

The information provided in this section is a non-confidential summary of the cultural resources inventory, because sections 6253, 6254, and 6254.10 of the California Code authorize State agencies to exclude archaeological site information from public disclosure under the Public Records Act. In addition, the California Public Records Act (Government Code § 6250 et seq.) and California's open meeting laws (The Brown Act, Government Code § 54950 et seq.) protect the confidentiality of Native American cultural place information. Under Exemption 3 of the federal Freedom of Information Act (5 USC 5), because the disclosure of cultural resources location information is prohibited by the Archaeological Resources Protection Act of 1979 (16 USC 470hh) and Section 304 of the National Historic Preservation Act, it is also

exempted from disclosure under the Freedom of Information Act. Likewise, the Information Centers of the CHRIS maintained by the California OHP prohibit public dissemination of records search information. In compliance with these requirements, the results of the cultural resource investigation were prepared as a confidential document, which is not intended for public distribution in either paper or electronic format. As such, the Cultural Resources Inventory Report is not included as an appendix in this IS/MND. While information describing the various Cultural Resources time periods is included in the IS/MND discussion, any references to location of archaeological sites and artifacts have been removed for confidentiality and protection of these resources.

Records Search

Prior to conducting the intensive-level field survey, a records search for the property at the NEIC on December 19, 2019, was completed. The purpose of the records search was to determine the extent of previous surveys within the Proposed Project location, and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within this area. Based on this information, the Project site was previously surveyed at a part of the Willow Glen Estates Subdivision. No cultural resources were identified at that time. Two additional investigations were conducted adjacent to the project site. According to NEIC records, no sites have been formally documented within the Project site or within 0.25 mile of the Project site.

Field Survey

On December 24, 2019, Genesis Society subjected the Project site to an intensive pedestrian survey by means of walking systematic transects spaced at 20-meter intervals. In searching for cultural resources, the surveyor, Sean Michael Jensen, M.A., considered the results of the background research and was alert for any unusual contours, soil changes, distinctive vegetation patterns, exotic materials, artifacts, feature or feature remnants and other possible markers of cultural sites.

4.5.2 Environmental Setting

The Project site occupies the relatively flat (pre) historic floodplain situated south-southwest of the Sacramento River, within the extreme north end of the Sacramento Valley. The Sacramento Valley is bordered by the Sierra Nevada mountain range to the east, the Cascade and Klamath ranges to the north and the Coast Range to the west. Surface waters within the Project vicinity generally flow through a number of west-east-trending drainages and eventually discharge into the Sacramento River. The latter body of water is situated approximately 4,000 feet north of the Project site.

Prehistory

The earliest residents of the Great Central Valley are represented by the Fluted Point and Western Pluvial Lakes Traditions, which date from about 11,500 to 7,500 years ago. These early cultural assemblages were followed by an increase in Native population density after about 7,500 years ago. The possibility exists that this early culture represents Hokan-speaking peoples who were also ancestral who subsequently expanded into the southern Cascade, southern Klamath, the North Coast Range and the lower reaches of the Sierra Nevada. Sometime around AD 200-400, the first major disruption of this possibly Hokan-

speaking population by Penutian immigrants is believed to occurred. Arriving ultimately from southern Oregon and the Colombia and Modoc Plateau region and proceeding down the major drainage systems (including the Sacramento, Feather, Yuba and American rivers), these Penutian-speaking arrivals eventually displaced Hokan populations as far west as the Sacramento Valley floor and the margins of the Sacramento River.

At the time of contact with Euro-American populations (circa AD 1850), these Penutian-speaking peoples were still expanding into areas previously occupied by the earlier-arriving Hokan-speaking peoples. Presumably introduced by the Penutians were more extensive use of bulbs and other plant foods, animal and fishing products more intensively processed with mortars and pestles, and perhaps the bow and arrow and associated small-stemmed-and corner-notched projectile points. In the Redding area, the so-called Shasta (archaeological) Complex represents the material cultural record of the local Penutian speakers.

Ethnography

The Project site is located within the lands traditionally claimed by the Bald Hills subgroup of Wintu Indians. This area is adjacent to the Keswick Wintu tribelet to the north, a short distance west of the border shared with the Central Yana, and a short distance north of the border shared with the Nomlaki. The ethnography of the Project Area is discussed in more detail in the Tribal Cultural Resources section of this IS/MND.

Historic Context

Historic evidence exists to document that some Spanish and Mexican expeditions may have come through and made brief stays within northern California. John Work's fur trapping expedition through central California in 1832-33 introduced several communicable diseases to the Native inhabitants, which turned out to be devastating to Wintu culture and society.

The next major incursion by white men occurred during the Gold Rush period, which in the Project Area began with Reading's 1848 discovery of gold south of Redding along Clear Creek. Mineral deposits along many of the streams in north Redding and streams located to the east and west of the Sacramento River were intensively mined on a fairly small scale through the end of the nineteenth century. At the turn of the twentieth century, Shasta County began to experience accelerated population and economic growth as the mineral resources began to be increasingly mined with mechanized equipment. Hundreds of "wildcat" operations emerged to exploit the recently discovered copper, gold and silver deposits. Mining stimulated the growth of other industries as well and soon led to a burgeoning population. Subsequently, during the 1930's a number of dragline and bucket-line dredges were active in the Redding district, particularly along Clear Creek and Olney Creek, northwest of the Project site.

The early mining activity, coupled with subsequent copper mining within the Iron Mountain area west of the Sacramento River, water diversion and storage projects along the Sacramento River, and contemporary urbanization north of Redding, generally have all impacted prehistoric and early historic sites in the region.

Project Area History

Thomas Freeman purchased land, which he would call American Ranch, in the Anderson area in 1854. The ranch was subsequently purchased by Elias Anderson in 1856 and shortly thereafter, Anderson constructed the American Ranch Hotel. With the coming of the Central Pacific Railroad, Anderson granted the railroad right-of-way across his ranch. A depot was constructed, and the community of Anderson began to grow along with the livestock, lumber and farming industries.

South of the Project site, the community of Cottonwood was established by immigrants following the Sacramento River and Noble's Trail. Founded on the southside of Cottonwood Creek, the community was settled between 1856 and 1872, but was officially established in 1872 when Central Pacific established a depot on the north bank of Cottonwood Creek.

Like much of California, the region witnessed continued growth in the ranching and agricultural sectors throughout the latter half of the nineteenth century. The Wright Act of 1887 empowered the creation of irrigation districts and over the next 10 years, 49 such districts were created. In 1897, the Wright Act was revised and prohibited the creation of new districts. However, in 1913, the Irrigation District Bond Certification Commission was formed and the first "new" district created was the Anderson-Cottonwood Irrigation District (ACID).

Organized in 1914, and funded in 1915, ACID experienced substantial scope and funding errors which delayed construction of the system until the 1920s. The system was designed as a series of canals and laterals to convey water diverted from the Sacramento River near Redding to district canals. The Tormey Drain, adjacent to the Project site, is one of the ordinary laterals that convey water for the Main Canal to various properties served by ACID.

4.5.3 Cultural Resources (V) Environmental Checklist and Discussion

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 pursuant to §15064.5?	☐	☒	☐	☐

The Cultural Resources Inventory Survey completed for the Project identified that no historical resources were found on the Project site. Roadway construction including utility infrastructure installation and an unnamed creek crossing, grading of the site, as well as future construction would occur with approval of the tentative subdivision map, General Plan amendment, and rezone. This construction has the potential to expose previously unrecorded historic resources. As such, Mitigation Measure **CUL-1** is required to reduce potential historic resource impacts to the less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

The Project site was investigated by a professional archaeologist, who concluded that there were no known unique archaeological resources within the Project site. No evidence of prehistoric activity or occupation was observed during the pedestrian survey. The absences of such resources may be explained, at least in part, by the historic through contemporary disturbances throughout the Project site. However, it is more likely this absence is due to the fact that the land area, prior to the excavation of the Tormey Drain, consisted of marsh lands, where prehistoric occupation would have been undesirable, and more desirable settings were located closer to the Sacramento River. However, while no known archaeological resources were found during the cultural resources inventory analysis and the Proposed Project would not include any construction, there always remains the potential for ground-disturbing activities to expose previously unrecorded archaeological resources during future construction projects. As such, Mitigation Measure **CUL-1** is required to reduce impacts to potential archaeological resources to the less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

No known burial sites were identified during the field survey. A search of the Sacred Lands File by the NAHC failed to indicate the presence of Native American cultural resources in the Project Area. Although Native American burial sites were not identified in the Project Area, there is a possibility that unanticipated human remains will be encountered during ground-disturbing project-related activities. Therefore, impacts to unknown human remains would be less than significant with incorporation of Mitigation Measure **CUL-1**.

4.5.4 Mitigation Measures

CUL-1: **Cultural or Archaeological Resource Discovery.** All subdivision improvement plans and grading plans shall include the following:

If subsurface deposits believed to be cultural or human in origin are discovered during any roadway or future construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify

the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the City and landowner. If the find is determined to be eligible for inclusion in the NRHP or CRHR, the City shall consult on a finding of eligibility and implement appropriate treatment measures. Work may not resume within the no-work radius until the City, through consultation as appropriate, determines that the site either: 1) is not eligible for the NRHP or CRHR; or 2) that the treatment measures have been completed to its satisfaction.
- If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Shasta County Coroner (in accordance with § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *The City of Anderson*

4.6 Energy

4.6.1 Environmental Setting

Electricity/Natural Gas Services

Pacific Gas and Electric (PG&E) provides electrical services to the Project area through state-regulated public utility contracts. PG&E's ability to provide its services concurrently for each project is evaluated during the development review process. The utility company is bound by contract to update its systems to meet any additional demand. PG&E also supplies natural gas to the City of Anderson and would service the Project site.

Energy Consumption

Electricity use is measured in kilowatt-hours (kWh), and natural gas use is measured in therms. Vehicle fuel use is typically measured in gallons (e.g., of gasoline or diesel fuel), although energy use for electric vehicles is measured in kWh.

The electricity consumption associated with all non-residential uses in Shasta County from 2014 to 2018 is shown in Table 4.6-1. As indicated, the demand has experienced waves of increase and decrease since 2014, but most recently increased between 2017 and 2018.

Table 4.6-1. Non-Residential Electricity Consumption in Shasta County 2014-2018

Year	Non-Residential Electricity Consumption (kilowatt hours)
2018	821,346,132
2017	811,978,474
2016	816,056,877
2015	837,248,805
2014	814,787,970

Source: California Energy Commission (CEC) 2019

The natural gas consumption associated with all non-residential uses in Shasta County from 2014 to 2018 is shown in Table 4.6-2. As indicated, the demand increased between 2014 and 2017, then decreased between 2017 and 2018.

Table 4.6-2. Non-Residential Natural Gas Consumption in Shasta County 2014-2018

Year	Non-Residential Natural Gas Consumption (therms)
2018	14,869,651
2017	15,750,715

Table 4.6-2. Non-Residential Natural Gas Consumption in Shasta County 2014-2018

Year	Non-Residential Natural Gas Consumption (therms)
2016	15,741,631
2015	14,598,151
2014	12,975,744

Source: CEC 2019

Automotive fuel consumption in Shasta County from 2015 to 2019 is shown in Table 4.6-3. As shown, automotive fuel consumption increased between 2015 and 2017 and subsequently decreased since 2017.

Table 4.6-3. Automotive Fuel Consumption in Shasta County 2015-2019

Year	Countywide Fuel Consumption (gallons)
2019	149,664,975
2018	152,863,047
2017	156,039,870
2016	155,001,072
2015	150,820,561

Source: CARB 2017

4.6.2 Energy (VI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐

The impact analysis focuses on the four sources of energy that are relevant to development that may result due to the Proposed Project: electricity, natural gas, the equipment-fuel necessary for construction, and the automotive fuel necessary for operations. A 70,000-square-foot heavy-commercial project is considered in this analysis, consistent with the Traffic Impact Review prepared for the Project (GHD 2020). Addressing energy impacts requires an agency to make a determination as to what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of energy for a proposed land use project. For the purpose of this analysis, the amount of electricity and natural gas estimated to be

consumed by the future development is quantified and compared to that consumed by all non-residential land uses in Shasta County. Similarly, the amount of fuel necessary for construction and operations is calculated and compared to that consumed in Shasta County on an annual basis.

The analysis of electricity and gas usage is based on CalEEMod modeling conducted by ECORP Consulting (see Appendix A), which quantifies energy use for operations. The amount of operational automotive fuel use was estimated using CARB's EMFAC2017 computer program, which provides projections for typical daily fuel usage in Shasta County. The amount of total construction-related fuel use was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. Energy consumption associated with the Proposed Project is summarized in Table 4.6-4.

Table 4.6-4. Energy and Fuel Consumption of Project-Induced Development

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Electricity Consumption[1]	668.892 kilowatt-hours	0.08143 percent
Natural Gas[1]	9.13 therms	0.00006 percent
Automotive Fuel Consumption		
Project Construction[2]	80,690 gallons	0.05391 percent
Project Operations[3]	1,130,000 gallons	0.00755 percent

Source: [1]ECORP 2020; [2]Climate Registry 2016; [3]EMFAC2017 (CARB 2017)
Notes: The Project-induced development increases in electricity and natural gas consumption are compared with all of the non-residential buildings in Shasta County in 2018, the latest data available. The Project-induced development increases in automotive fuel consumption are compared with the countywide fuel consumption in 2019. Operational vehicle trips of 780 per day on weekdays provided by GHD (2020).

As shown in Table 4.6-4, the increase in electricity usage as a result of the Project-induced development would constitute an approximate 0.08143 percent increase in the typical annual electricity consumption attributable to non-residential uses in Shasta County. Project-induced development increases in natural gas usage across Shasta County constitute a 0.00006 percent increase from baseline levels. The development would adhere to all federal, state, and local requirements for energy efficiency, including the Title 24 standards. The future development would be required to comply with Title 24 building energy efficiency standards, which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage.

As further indicated in Table 4.6-4, the development's gasoline fuel consumption during the one-time construction period is estimated to be 80,690 gallons of fuel, which would increase the annual countywide gasoline fuel use in Shasta County by 0.05391 percent during the year construction occurred. As such, construction would have a nominal effect on local and regional energy supplies. No unusual characteristics of future Project-induced development would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or the state. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits.

Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency, combined with state regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of equipment fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Project-induced development would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

As indicated in Table 4.6-4, operation of potential future development is estimated to consume approximately 1,130,000 gallons of automotive fuel per year, which would increase the annual countywide automotive fuel consumption by 0.00755 percent. The amount of operational fuel use was estimated using CARB's EMFAC2017 computer program, which provides projections for typical daily fuel usage in Shasta County. This analysis conservatively assumes that all of the automobile trips projected to arrive at the Project site during operation of future development would be new to Shasta County. Project trip generation estimates are provided by the Traffic Impact Review completed by GHD (2020). The Traffic Impact Review considered 70,000 square feet of heavy-commercial development, as a proxy for potential future development. The development is estimated to generate 780 trips per day during Project operations and would not result in excessive long-term operational automotive fuel consumption. Fuel consumption associated with vehicle trips generated by Project-induced development would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. Furthermore, the Project-induced development would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. For these reasons, this impact would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Future commercial or heavy commercial development that may result from the Project would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy resources. Relevant energy conservation plans specific to Anderson include the Draft Shasta Regional Climate Action Plan (RCAP) and the City's General Plan Open Space and Conservation Element, Energy Conservation section. Future development would be required to comply with RCAP Measure BE-2: New Construction. Measure BE-2 states that all new construction developed between 2015 and 2020 would be required to comply with Title 24 requirements. Measure BE-2 does not set specific energy efficiency goals for post-2020 construction; however, at least the same efficiency requirement for 2015-2020 can be assumed. The remaining RCAP measures are essentially voluntary, relying on assumed levels of community participation to create communitywide emission reductions.

The Energy Section of the Open Space and Conservation Element of the General Plan contains numerous policies aimed at energy conservation in the City. The Project and resulting future development would not conflict with any of the relevant energy conservation policies.

The Project would not conflict or obstruct any local or state plans for renewable energy or energy efficiency. For these reasons, this impact would be less than significant.

4.6.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.7 Geology and Soils

4.7.1 Environmental Setting

Geomorphic Setting

The Project site is located in the north-central portion of the Great Valley geomorphic province of California. The Great Valley is an alluvial plain, about 50 miles wide and 400 miles long, between the Coast Ranges and the Sierra Nevada. The Great Valley is drained by the Sacramento and San Joaquin rivers, which join and then enter San Francisco Bay. The eastern border is the west-sloping Sierran bedrock surface, which continues westward beneath alluvium and older sediments. The western border is underlain by east-dipping Cretaceous and Cenozoic strata that form a deeply buried synclinal trough, lying beneath the Great Valley along its western side. The southern part of the Great Valley is the San Joaquin Valley. Its great oil fields follow anticlinal uplifts that mark the southwestern border of San Joaquin Valley and its southern basin. To the north, the Sacramento Valley plain is interrupted by the Marysville Buttes, an isolated Pliocene volcanic plug about 2,000 feet high (California Geological Survey [CGS] 2002).

Site Soils

According to the NRCS via the Web Soil Survey database, the Project site is composed of two soil units: Churn gravelly loam, deep, 0 to 3 percent slopes, and Reiff loam, seeped, 0 to 3 percent slopes, as shown in Table 4.7-1. The Web Soil Survey also identifies drainage, flooding, erosion, runoff, and the linear extensibility potential for the Project soils. According to this survey, the Project soil is moderately to well drained, has a range in runoff potential, and has no to rare potential for flooding. The Project site soil has a slight erosion potential and low to moderate linear extensibility (shrink-swell) (NRCS 2020).

Table 4.7-1. Project Area Soil Characteristics

Soil	Percentage of Site	Drainage	Flooding Frequency Class	Erosion Hazard (Road, Trail)[1]
Churn gravelly loam, deep, 0 to 3 percent slopes, CfA	94.2%	Well drained	None	Slight
Reiff loam, seeped, 0 to 3 percent slopes, RmA	5.8%	Moderately well drained	Rare	Slight
	Runoff Potential[2]	**Linear Extensibility (Rating)[3]**	**Frost Action[4]**	
Churn gravelly loam, deep, 0 to 3 percent slopes, CfA	C (moderate)	4.1%, moderate	None	
Reiff loam, seeped, 0 to 3 percent slopes, RmA	A/D (low/high)	1.5%, low	None	

Source: NRCS 2020

Notes:

1. The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," "severe," or "very severe." A rating of "slight" indicates that erosion is unlikely under ordinary climatic conditions; "moderate" indicates that some erosion is likely and that erosion-control measures may be needed; "severe" indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and "very severe" indicates that significant erosion is expected, loss of soil productivity and offsite damage are likely, and erosion-control measures are costly and generally impractical.
2. Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation.
   Group A: Soils having a high infiltration rate (low runoff potential) when thoroughly wet.
   Group B: Soils having a moderate infiltration rate when thoroughly wet.
   Group C: Soils having a slow infiltration rate when thoroughly wet.
   Group D: Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet.
3. Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3%, moderate if 3 to 6%, high if 6 to 9%, and very high if more than 9%. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.
4. Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Regional Seismicity and Fault Zones

In California, special definitions for active faults were devised to implement the Alquist-Priolo Earthquake Fault Zoning Act of 1972, which regulates development and construction in order to avoid the hazard of surface fault rupture. The State Mining and Geology Board established policies and criteria in accordance with the act. The board defined an active fault as one which has had surface displacement within Holocene time (about the last 11,000 years). A potentially active fault was considered to be any fault that showed evidence of surface displacement during Quaternary time (last 1.6 million years). Because of the large number of potentially active faults in California, the State Geologist adopted additional definitions and criteria in an effort to limit zoning to only those faults with a relatively high potential for surface rupture. Thus, the term sufficiently active was defined as a fault for which there was evidence of Holocene surface displacement. This term was used in conjunction with the term well-defined, which relates to the ability to locate a Holocene fault as a surface or near-surface feature (CGS 2011).

According to the Anderson General Plan, Shasta County has a low level of historic seismic activity. In the past 120 years there has been no significant property damage or loss of life due to earthquakes occurring within or near Shasta County according to the Shasta County General Plan. Shasta County is entirely within Seismic Zone 3 of the Uniform Building Code. Therefore, the City of Anderson is at low risk of experiencing an earthquake. However, the City has adopted the California Building Code (CBC) and will require all buildings to meet the standards of this Code (Anderson 2007a).

According to the DOC Data Viewer interactive mapping program, the closest earthquake fault to the Project site is the Battle Creek fault, approximately seven miles south of the Project site, along the Shasta/Tehama county line. This fault is a quaternary and late quaternary fault depending on location. The nearest Holocene fault is the Hat Creek fault located approximately 30 miles east of the Project site (CGS 2020).

Paleontological Resources

A paleontological records search was completed using the University of California Museum of Paleontology (UCMP) Locality Search website on September 14, 2020. The search included a review of the institution's paleontology specimen collection records for Shasta County, including the Project Area and vicinity. The purpose of the assessment was to determine the sensitivity of the Project site, whether or not known occurrences of paleontological resources are present within or immediately adjacent to the Project site, and whether or not implementation of the project could result in significant impacts to paleontological resources. Paleontological resources include mineralized (fossilized) or unmineralized bones, teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains.

The results of the search of the UCMP indicated that 39 paleontological specimens were recorded from 37 identified localities and two unidentified localities in the City of Redding. Paleontological resources include fossilized remains of plants, mammals, fish, mollusks, and microfossils. No paleontological resources have been previously recorded within or near the Proposed Project site (UCMP 2020).

4.7.2 Geology and Soils (VII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐

i) The Proposed Project site is not located within an Alquist-Priolo Earthquake Zone (CGS 2011). There would be no impact related to fault rupture.

ii) According to CGS' Earthquake Shaking Potential for California mapping, the Proposed Project site is located in an area with a low to moderate likelihood of experience ground shaking (CGS 2003). During most earthquakes, only weaker masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking in the area (CGS 2016). While the Proposed Project does not include the construction of any structures, approval of the Project will allow for construction of future uses consistent with the C-3 zoning district. However, all structures would be required to comply with the 2019 CBC, including the required seismic mitigation standards. Because of the required compliance with the CBC seismic mitigation standards and the distance from active faults, the Proposed Project would have a less than significant impact related to strong ground shaking.

iii) Liquefaction occurs when loose sand and silt saturated with water behaves like a liquid when shaken by an earthquake. Liquefaction can result in the following types of seismic-related ground failure:

- Loss of bearing strength – soils liquefy and lose the ability to support structures
- Lateral spreading – soils slide down gentle slopes or toward stream banks
- Flow failures – soils move down steep slopes with large displacement
- Ground oscillation – surface soils, riding on a buried liquefied layer, are thrown back and forth by shaking
- Flotation – floating of light buried structures to the surface
- Settlement – settling of ground surface as soils reconsolidate
- Subsidence – compaction of soil and sediment

Liquefaction potential has been found to be greatest where the groundwater level and loose sands occur within a depth of about 50 feet or less. DOC provides mapping for area susceptible to liquefaction in California. According to this mapping, the Project site is not located in an area

identified for the risk of liquefaction (CGS 2018). Additionally, while the Proposed Project does not include the construction of any structures, approval of the Project will allow for construction of future uses consistent with the C-3 zoning district. However, all structures would be required to comply with the CBC, including any required liquefaction analysis. As such, the Proposed Project would result in less than significant impacts with regard to seismic-related ground failure, including liquefaction.

iv) The Project site is of minimal elevation gain and the site does not have steep hillsides or other formations susceptible to landslides during a seismic event. As such, the potential for landslides would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

As shown in Table 4.6-1, the Project soil has a slight erosion potential. The construction of the East Street extension, utility infrastructure, site grading, as well as, any future construction activities, involving grading, excavation, and soil hauling, would disturb soils and potentially expose them to wind and water erosion.

For any future commercial or heavy commercial projects that disturb one or more acres of soil, the project proponent would be required to prepare a SWPPP to comply with the RWQCB General Construction Storm Water Permit. As a part of the SWPPP, best management practices (BMPs) are required which, in part, are used to reduce the potential for erosion. Further discussion of the SWPPP is included in *Section 4.10 Hydrology and Water Quality*.

Furthermore, regardless of the Project's size, the City of Anderson Municipal Code Section 15.22.040 requires that all development within a flood zone restrict or prohibit uses that are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities.

Based on the site's soil erosion rating of "slight", requirement of BMPs for those future projects requiring a SWPPP, and Municipal Code Section 15.22.040, the Project would have a less than significant impact regarding erosion impacts.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

As discussed previously, the Project site has little potential for landslides.

Lateral spreading is a form of horizontal displacement of soil toward an open channel or other "free" face, such as an excavation boundary. Lateral spreading can result from either the slump of low cohesion and unconsolidated material or, more commonly, by liquefaction of either the soil layer or a subsurface layer underlying soil material on a slope, resulting in gravitationally driven movement. One indicator of potential lateral expansion is frost action. Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing (NRCS 2020). As indicated in Table 4.7-1, the Web Soil Survey identifies the Project site as having soils with a no frost action potential. Additionally, as discussed in Item a) iii) above, the Project site is not identified as susceptible to liquefaction. As such, the potential for impacts due to lateral spreading would be less than significant.

With the withdrawal of fluids, the pore spaces within the soils decrease, leading to a volumetric reduction. If that reduction is significant enough over an appropriately thick sequence of sediments, regional ground subsidence can occur. This typically only occurs within poorly lithified sediments and not within competent rock.[1] No oil, gas, or high-volume water extraction wells are known to be present in the Project Area. According to the USGS, the City of Anderson, including the Project site, is not located in an area of land subsidence (USGS 2018). While no building development is proposed with the Project, future construction on the Project site may occur. However, the site is not located in an area known for subsidence potential. As such, the potential for impacts due to subsidence would be less than significant.

Collapse occurs when water is introduced to poorly cemented soils, resulting in the dissolution of the soil cementation and the volumetric collapse of the soil. In most cases, the soils are cemented with weak clay (argillic) sediments or soluble precipitates. This phenomenon generally occurs in granular sediments situated within arid environments. Collapsible soils will settle without any additional applied pressure when sufficient water becomes available to the soil. Water weakens or destroys bonding material between particles that can severely reduce the bearing capacity of the original soil. The collapse potential of the Project Area soil must be determined for consideration in the foundation design.

[1] The processes by which loose sediment is hardened to rock are collectively called lithification.

Because of the distance from active faults and the nature of the Project, the potential for that settlement/collapse at the site is considered unlikely. As such, there is a less than significant impact in this area.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐

Expansive soils are types of soil that shrink or swell as the moisture content decreases or increases. Structures built on these soils may experience shifting, cracking, and breaking damage as soils shrink and subside or expand. Expansive soils can be determined by a soil's linear extensibility. There is a direct relationship between linear extensibility of a soil and the potential for expansive behavior, with expansive soil generally having a high linear extensibility. Thus, granular soils typically have a low potential to be expansive, whereas clay-rich soils can have a low to high potential to be expansive. The shrink-swell potential is low if the soil has a linear extensibility of less than three percent, moderate if three to six percent, high if six to nine percent, and very high if more than 9 percent. If the linear extensibility is more than three, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. As shown in Table 4.7-1, the majority of Project site soils exhibits a linear extensibility value of 4.1 percent. Soils with linear extensibility of 4.1 percent correlate to having a moderate expansion potential. The Proposed Project would have no impact regarding expansive soils and building construction as no actual building construction is proposed. However, construction of the East Street extension including public facility infrastructure will occur in the short-term. The construction of a street and the potential for impacts because of expansive soils would not result in creating substantial direct or indirect risks to life or property. As such, the construction of East Street would have no impact in this area. However, future development of the site may result in potential for affects to this new development as a result of expansive soils. As such, mitigation to reduce this potential is required. Therefore, Mitigation Measure **GEO-1** has been included in this IS/MND. Implementation of this mitigation measure would reduce potential expansive soils impact to a less than significant level.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

The Project does not include the development of any new commercial uses; therefore, the Project, in and of itself, would not use septic or alternative wastewater systems. However, approval of the General Plan

amendment and rezone would allow commercial and heavy commercial uses that are currently not allowed on the Project site. All future commercial uses would be required to comply with Anderson Municipal Code Section 13.76.110. This code requires that new uses connect to the City's sewer system unless no public sewer is located within 200 feet of any property line of the premises. The Project will be required to connect to the City's municipal wastewater system. As such, any future projects would have no impact in this area.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

A search of the UCMP failed to indicate the presence of paleontological resources on the Project site (UCMP 2020). Although paleontological resources sites were not identified in the Project site and the Project, in and of itself, does not include any construction activities, there is a possibility that unanticipated paleontological resources will be encountered during future projects and related ground-disturbing activities. Therefore, impacts to unknown paleontological resources would be less than significant with incorporation of Mitigation Measure **GEO-2**.

4.7.3 Mitigation Measures

GEO-1: **Expansive Soils.** All future development on the Project site shall complete a geotechnical engineering analysis and implement all measures included in that report to reduce the effects of expansive soils, if necessary, to the satisfaction of the City Building Official.

Timing/Implementation: *Prior to and during construction*

Monitoring/Enforcement: *The City of Anderson*

GEO-2: **Paleontological or Sensitive Geologic Resource Discovery.** If paleontological or other geologically sensitive resources are identified during any phase of development including roadway development and future developments on the Project site, the applicant shall cease operation at the site of the discovery and immediately notify the City of Anderson. The future Project proponent shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. In considering any suggested mitigation proposed by the qualified paleontologist, the City shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the development site while mitigation for paleontological resources is carried out.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *The City of Anderson*

4.8 Greenhouse Gas Emissions

4.8.1 Environmental Setting

Greenhouse Gas (GHG) emissions are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps over 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Regulatory Framework

Shasta Regional Climate Action Plan

In 2010, the SCAQMD initiated the RCAP process. The primary objectives of the RCAP process are to contribute to the State's climate protection efforts and to provide CEQA review streamlining benefits for development projects in the region's four jurisdictions: the City of Anderson, the City of Redding, the City of Shasta Lake, and the unincorporated areas of Shasta County. To facilitate these objectives, the SCAQMD worked with the four jurisdictions to prepare community-specific independent climate action plans that contain GHG emission inventories and forecasts, emission reduction measures, and implementation and monitoring programs. The RCAP document serves as a collection of the individual climate action plans and demonstrates the region's commitment to the State's GHG reduction efforts (SCAQMD 2012).

Shasta Regional Transportation Agency Regional Transportation Plan/Sustainable Communities Strategy

In 2018, the Shasta Regional Transportation Agency (SRTA) adopted the 2018 Regional Transportation Plan/Sustainable Communities Strategy (SRTA 2018a). The 2018 RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow intelligently and sustainably. The 2018 RTP/SCS is a long-range visioning plan to encourage and promote the safe and efficient management, operation, and development of a regional intermodal transportation system that, when linked with appropriate land use planning, will serve the mobility needs of goods and people. The RTP/SCS is required to meet the region's GHG emissions reduction targets, established by CARB for the years 2020 and 2035. Currently, SRTA's is tasked by CARB to achieve a four percent reduction in mobile-source GHG emissions compared to 2005 vehicle emissions in 2020 and 2035.

CEQA-Level Thresholds of Significance

The CEQA Guidelines Appendix G thresholds for GHG emissions do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or other performance-based standards." (14 CCR 15064.4(b)). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change." (14 CCR 15064.4(c)). Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130). As a note, the CEQA Guidelines were amended in response to Senate Bill (SB) 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or

maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

The City and the SCAQMD have not established, and do not provide any guidance regarding, significance thresholds for GHG emissions. In the absence of any applicable adopted numeric threshold, the significance of the Project-induced GHG emissions are evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Therefore, the Project will be assessed for consistency with the GHG-reducing provisions contained in the SRTA RTP/SCS, which establishes an overall GHG target for the Project region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of SB 32, and the Shasta RCAP.

4.8.2 Greenhouse Gas Emissions (VIII) Environmental Checklist and Discussion

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?	☐	☐	☒	☐

Project GHG emissions for construction and operation have been quantified using CalEEMod and are summarized below. As explained previously, the Proposed Project may result in future commercial or heavy commercial development. Project emissions modeling has been conducted consistent with the land use analyzed in the traffic impact review prepared for the Project (GHD 2020).

Construction-Generated Greenhouse Gas Emissions

A potent source of GHG emissions associated with future development that may be induced by the Proposed Project would be combustion of fossil fuels during construction activities. The construction phase of the development project would be temporary but would result in GHG emissions from the use of heavy construction equipment and construction-related vehicle trips.

Construction-related activities that would generate GHGs include worker commute trips, haul trucks carrying supplies and materials to and from the Project site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 4.8-1 illustrates the specific construction generated GHG emissions that would result from the construction phase.

Table 4.8-1. Construction-Related Greenhouse Gas Emissions

Emissions Source	CO2e (Metric Tons/Year)
Construction in Year One	541
Construction in Year Two	278
Project Construction Total	**819**

Source: CalEEMod version 2016.3.2. Refer to Appendix E for Model Data Outputs.
Notes: 1) Start of construction is assumed to be in the summer of 2021 for modeling purposes only. Actual construction for future uses is unknown at this time.

As shown in Table 4.8-1, construction at the Project site would result in the generation of approximately 819 metric tons of CO_2e over the course of construction. Once construction is complete and site vegetation is removed, the generation of these GHG emissions would cease.

Operation-Generated Greenhouse Gas Emissions

Operation of the Project would result in GHG emissions predominantly associated with motor vehicle use. Long-term operational GHG emissions attributable to the Project are identified in Table 4.8-2.

Table 4.8-2. Operational-Related Greenhouse Gas Emissions

Emissions Source	CO_2e (Metric Tons/Year)
Area Source Emissions	0
Energy Source Emissions	136
Mobile Source Emissions	813
Solid Waste Emissions	44
Water Emissions	34
Total Emissions	**1,027**

Source: CalEEMod version 2016.3.2. Refer to Appendix E for Model Data Outputs.

As shown in Table 4.8-2, the total amount of Project-related GHG emissions from direct and indirect sources combined would total 1,027 metric tons of CO_2e annually. This impact would be less than significant as no thresholds of significance have been established by the City or the SCAQMD. The following discussion addresses the Proposed Project's consistency with applicable plans and policies for GHG reduction.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Shasta Regional Climate Action Plan

As previously described, the SCAQMD initiated the RCAP process in 2010. The primary objectives of the RCAP process are to contribute to the State's climate protection efforts and to provide CEQA review streamlining benefits for development projects in the region's four jurisdictions. GHG emission forecasts were prepared for Shasta County and the individual jurisdictions (including Anderson) for 2020, 2035 and 2050, assuming that historic trends of energy and water consumption, waste generation, and land use and transportation pattern will remain similar in future with population growth. The RCAP states that the City's business as usual emissions trends were projected to be 98,854 metric tons of CO_2e in 2020, 122,790 metric tons of CO_2e in 2035, and 150,302 metric tons of CO_2e in 2050 which correspond to 12 percent, 39 percent, and 70 percent growth in emissions in the short-, mid, and long-term, respectively, from the 2008 baseline emissions. The RCAP establishes a community-wide emissions reduction target of 15 percent below 2008 levels by 2020, 49 percent below 2008 levels by 2035, and 83 percent below 2008 levels by 2050. The 2020 target was formed following guidance from CARB and the Governor's Office of Planning and Research, and the 2050 target follows guidance of Executive Order S-03-05. To facilitate these objectives, the SCAQMD worked with the four jurisdictions to prepare community-specific, independent climate action plans that contain GHG emission inventories and forecasts, emission reduction measures, and implementation and monitoring programs.

To meet emissions reduction targets, the RCAP relies on a combination of statewide actions and local emissions reduction efforts. The RCAP identifies both mandatory and voluntary emission reduction measures that would apply to different types of projects, including future commercial or heavy commercial development that may result from the Proposed Project. For each of the mandatory measures, the CAP either reinforces the implementation of current codes and ordinances or recommends changes to the City's codes and ordinances that would result in GHG reductions. RCAP Measure BE-2: *New Construction*, is the primary mandatory RCAP requirement applicable to new development projects. Measure BE-2 states that all new construction developed between 2015 and 2020 would be required to comply with Title 24 requirements that the CEC estimates will be 20 to 25 percent more energy-efficient than the 2008 standards. Measure BE-2 does not set specific energy efficiency goals for post-2020 construction; however, the same efficiency requirement for 2015-2020 can be assumed. The remaining RCAP measures are essentially voluntary, relying on assumed levels of community participation to create communitywide emission reductions.

All development in Anderson, including development that may result from the Project, is required to adhere to all City-adopted policy provisions, including those contained in the RCAP. Future development

due to the Project would not conflict with the RCAP, and no aspects of the Project or future development resulting from the Project would inhibit RCAP measures.

Shasta Regional Transportation Association Regional Transportation Plan/Sustainable Communities Plan

The 2018 RTP/SCS embodies a collective vision for the region's future and is developed with input from local governments, including the City of Anderson. The RTP/SCS establishes GHG emissions goals for automobiles and light-duty trucks for 2020 and 2035 and establishes an overall GHG target for the region consistent with both the statewide GHG-reduction targets for 2020 and the post-2020 statewide GHG reduction goals. The 2018 RTP/SCS is a long-range visioning plan to encourage and promote the safe and efficient management, operation, and development of a regional intermodal transportation system that, when linked with appropriate land use planning, will serve the mobility needs of goods and people. Future investments seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices. The RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding. In addition, the RTP/SCS is supported by a combination of transportation and land use strategies that help the region achieve state GHG emission reduction goals and federal CAA requirements, preserve open space areas, improve public health and roadway safety, support the vital goods movement industry, and use resources more efficiently.

The core strategy of the 2018 RTP/SCS is focused growth in existing Shasta County communities along the existing transportation network. This strategy allows the best "bang for the buck" in achieving key regional economic, environmental and equity goals: It builds upon existing community characteristics, efficiently leverages existing infrastructure, and mitigates impacts on areas with less development. The RTP/SCS identifies forecasted residential and job growth areas throughout Shasta County that are areas focused for growth and development.

The Project site is located in an area anticipated for low to moderate growth. The Project site and adjacent area are projected to accommodate a low to moderate number of jobs and residential households in the RTP/SCS (SRTA 2018a, Figure 48 and Figure 49). Thus, the commercial or heavy commercial development that may result from the Project would generate additional jobs in line with the RTP/SCS growth projections. As a result, the Project is consistent with 2018 RTP/SCS and it can be assumed that regional mobile emissions will continue to decrease in line with the goals of 2018 RTP/SCS with implementation of the Proposed Project. Implementing the 2018 RTP/SCS will greatly reduce the regional GHG emissions from transportation, and the Proposed Project will not obstruct the achievement of RTP/SCS emission reduction targets.

The Proposed Project would not conflict with an adopted plan, policy, or regulation pertaining to GHGs. As described, all development in Anderson, including future Project-induced development, is required to adhere to all City-adopted policy provisions, including Measure BE-2: New Construction, the mandatory RCAP requirement applicable to new development projects. Furthermore, the Project is proposed at a location consistent with the urban growth anticipated for the site in the 2018 RTP/SCS, and therefore will not obstruct the achievement of the RTP/SCS emission reduction targets.

4.8.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.9 Hazards and Hazardous Materials

4.9.1 Environmental Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined by the California Health and Safety Code, § 25501 as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

A hazardous material is defined in Title 22, Section 662601.10, of the CCR as follows:

> A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies.

Most hazardous materials regulation and enforcement in Shasta County is managed by the Shasta County Environmental Health Division (Division). The Division is charged with the responsibility of enforcement of pertinent California health laws, rules, regulations, and Shasta County Ordinances and is responsible for responding to incidents involving any release or threatened release of hazardous materials. Threats to people, property and the environment are assessed, and remedial action procedures are conducted under the supervision of a Registered Environmental Health Specialist. The Division is also responsible for requiring all business that use hazardous materials to comply with the State-required hazardous materials business plan submittal and registration with the California Environmental Reporting System.

Under Government Code § 65962.5, both the California Department of Toxic Substance Control (DTSC) and the State Water Resources Control Board (SWRCB) are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the DTSC (2020) and the SWRCB (2020) identified no open cases of hazardous waste violations on the Project site. Aside from the site assessment for the Project, a search of the DTSC (2020) list identified no open cases of hazardous waste violations within 0.5 mile of the Project site. A search of

the SWRCB (2020) list identified two open cases for a leaking underground storage tank (LUST) cleanup site within 0.5 mile from the Project site. One case is the Dotzenrod Shell Station located 0.35 mile southeast of the Project site. The case has been open since the LUST was discovered in 1999, and the site continues to undergo groundwater, soil vapor, and air monitoring. Another nearby case is the Anderson Chevron located 0.42 mile east of the Project site. The case has been open since 2004, when the LUST was first reported. Groundwater monitoring in the vicinity of the LUST is ongoing. The Proposed Project would not significantly impact ongoing remediation efforts at and surrounding the LUST cleanup sites nor cause upset of hazardous materials.

4.9.2 Hazards and Hazardous Materials (IX) Environmental Checklist and Discussion

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?	☐	☐	☒	☐

The Project includes the construction of East Street on the Project site and related infrastructure, as well as future development which is yet to be determined. Construction phases would require the transport and use of hazardous materials typically utilized for the paving of paths and roadways. The materials would be stored primarily offsite and may remain onsite for a short duration during construction, which is anticipated to last approximately one year.

Potential construction-related hazards could be created during the course of construction at the site due to use of hazardous materials, given that construction activities involve the use of heavy equipment, which uses small and incidental amounts of oils and fuels and other potentially flammable substances. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials used during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, state, and federal law.

As stated previously, no actual commercial development is currently proposed for the Project. However, potential future environmental impacts of development that may result from the land zoning and designation change must be analyzed. In order to determine the potential for future environmental impacts as a result of the Project's proposed land use changes, an analysis of potential futures uses compared to existing uses must be completed. The rezoning of two parcels to C-3 will allow for a variety of commercial uses to be developed on the Project site in the future. Those uses permitted by right, meaning no use permit or other discretionary action is required, would include a variety of commercial and heavy commercial uses. Potential uses most likely to include the use of hazardous materials include automobile parking lot, automobile parts supply store (not including installation, machine shop, repair or

a warehouse), cleaning agency or laundry, self-service laundry, dry cleaning, electronic assembly plant (not to include manufacturing), motorcycle sales and service, gasoline service stations. For a complete list of uses permitted by right in the C-3 zoning district, see Section 17.22.020 of the Anderson Municipal Code.

As such, in the event that a gasoline service station is later constructed at the site, the gasoline service station would require the installation of new fueling stations and underground storage tanks to store gasoline and diesel fuel at the site. Typical incidents that could result in accidental release of hazardous materials involve LUSTs, spills during transport, inappropriate storage, inappropriate use, and/or natural disasters. If not remediated immediately and completely, these and other types of incidents could cause toxic fumes and contamination of soil, surface water, and groundwater. Depending on the nature and extent of the contamination, groundwater supplies could become unsuitable for use as a domestic water source. Human exposure to contaminated soil or water could have potential health effects depending on a variety of factors, including the nature of the contaminant and the degree of exposure.

In the event that a gasoline service station is later constructed at the site, the Project would be subject to routine inspection by federal, state, and local regulatory agencies with jurisdiction over fuel-dispensing facilities. For instance, California Health and Safety Code Section 25290.1(a) mandates that all fuel storage tanks installed after 2004 meet durability, structural integrity, and size requirements to greatly reduce the likelihood of hazardous waste leakage or combustion. The applicant is also required to comply with applicable provisions of Title 49 CFR Parts 100–185 and all amendments through December 9, 2005 (Hazardous Materials Regulations). Hazardous materials must be stored in designated areas designed to prevent accidental release to the environment. CBC requirements prescribe safe accommodations for materials that present a moderate explosion hazard, high fire or physical hazard, or health hazards. For instance, the underground storage tanks would consist of double-walled, fiberglass fuel storage tanks with leak detection sensors.

The gasoline would need to be transported in via truck. This is a routine procedure that is not expected to impose excessive risk. The Project would be required to comply with the California Vehicle Code Section 31303, which requires that hazardous materials be transported using routes with the lowest travel time. CVC Section 31303 further prohibits the transportation of hazardous materials through residential neighborhoods.

Furthermore, in the event that a dry cleaning or laundry operation is later constructed at the site, the establishment would be required to comply with CCR Title 8. §4481. Washing Machines and Occupational Safety and Health Standards for Laundry Machinery and Operations to ensure employee and user safety. The USEPA regulates use and disposal of hazardous waste from dry cleaning and laundry plants, pursuant to the Resource Conservation and Recovery Act.

Similarly, automobile, motorcycle, and machine service and repair shops would be required to properly use and dispose of hazardous materials. Release of hazardous materials would be regulated by the DTSC. Furthermore, the USEPA promulgates auto repair compliance and assistance tools to minimize risk associated with use of hazardous materials for vehicle repair and maintenance.

Other permitted uses would not be expected to generate significant amounts of hazardous material, and only a minimal amount of routine day-to-day hazardous materials would be expected to be stored onsite. These materials would be used, stored, and disposed in accordance with existing regulations and product labeling and would not create a significant hazard to the public or to the environment. Therefore, long-term impacts associated with handling, storing, and dispensing of hazardous materials would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

As discussed in Issue a), the Project would not result in the routine transport, use, disposal, handling, or emission of any hazardous materials that would create a significant hazard to the public or the environment. Any use of hazardous materials would require the hazardous materials to be utilized, stored, and transported pursuant to state and federal safety regulations. Therefore, the Project would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

The Proposed Project may result in future commercial or heavy commercial development. Although several schools are located in the City of Anderson, no schools are located within 0.25 mile of the Project site. As explained under items a and b above, hazardous materials used for construction will be stored, used, and transported in compliance with applicable label directions and laws. The Proposed Project is not expected to emit hazardous emissions due to use of hazardous materials during construction and any use of hazardous materials during operation would be done in compliance with state and federal safety regulations. Therefore, the Project will have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	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?	☐	☐	☐	☒

Under Government Code § 65962.5, both the DTSC and the SWRCB are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the DTSC and SWRCB lists identified that the Proposed Project site is not located on a hazardous materials site. As such, the Project will have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the Project Area?	☐	☐	☐	☒

The Redding Airport is the nearest airport to the Project site, located approximately 3.0 miles to the north. The Project site is more than two miles away from the airport and the construction and operation of the Project would not result in noise or safety impacts related to the airport. As such, the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

The Proposed Project does not include any actions that would impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Neither the City of Anderson General Plan, Health and Safety Element (Anderson 2007a) nor the Shasta County Emergency Operations Plan (Shasta County 2014) identify evacuation routes in the City of Anderson. However, SR 273 and Interstate 5 (I-5) are the major arterial routes that would likely serve as a primary evacuation route in the event of an emergency. The Project site is located approximately 0.02 mile northeast of SR 273 and 0.40 mile southwest of I-5. However, any future construction activities would access the site via East Street and

would have construction adjacent to SR 273 or I-5. Therefore, future construction would not obstruct emergency evacuation from these roadways.

Following construction, operation of the Proposed Project would have no impact on emergency response or evacuation. Implementation of the Proposed Project would result in a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents), and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area to mass ratio and require more heat to reach the ignition point.

The California Department of Forestry and Fire Prevention (CAL FIRE) Very High Fire Hazard Severity Zones in a State Responsibility Area map identifies the Project site as not being located in a Fire Hazard Severity Zone (FHSZ,) (CAL FIRE 2008). The Project is located in an urbanized area not considered susceptible to wildland fire. The Project would not result in the potential for wildfire impacts. The Project would have no impact in this area.

4.9.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.10 Hydrology and Water Quality

4.10.1 Environmental Setting

Regional Hydrology

Surface Water

The Project site is located in the greater Sacramento River hydrologic region. The Sacramento River hydrologic region covers ±17.4 million acres (27,200 square miles). The region includes all or large portions of Modoc, Siskiyou, Lassen, Shasta, Tehama, Glenn, Plumas, Butte, Colusa, Sutter, Yuba, Sierra, Nevada, Siskiyou, Sacramento, El Dorado, Yolo, Solano, Lake, and Napa counties. Small areas of Alpine and Amador counties are also within the region. Geographically, the region extends south from the Modoc Plateau and Cascade Range at the Oregon border, to the Sacramento-San Joaquin Delta (Department of Water Resources [DWR] 2004, 2016a).

The Project site is located within boundaries of the Sacramento River Watershed, which is 27,000 square miles in size and covers much of Northern California. The watershed drains the Cascade Range, Coast Ranges, Modoc Plateau, Sierra Nevada, and Sacramento Valley. The Sacramento River originates over 400 miles north of Shasta Lake and flow to the Sacramento River-San Joaquin River Delta. The Sacramento River Watershed Program (SRWP) identified the Feather, Yuba, Pit, and American rivers as major tributaries (SRWP no date).

Groundwater

Groundwater in the State of California is managed and monitored by the DWR. The Project site is within the Redding Area- Anderson Subbasin, (subbasin number 5-006.03) of the Sacramento Valley Hydrologic Region (DWR 2015). The original basin descriptions were provided in the 2004 Bulletin 118 (B118) Update completed by the DWR. The 2004 basin descriptions included available information on narrative descriptions of basin boundaries, summaries of the hydrologic and hydrogeologic setting, groundwater storage capacity and water budget, groundwater level and quality trends, well yields, basin management, and references. Bulletin 118 was updated in 2016.

The Anderson Subbasin is a portion of the Redding groundwater basin. The subbasin is bounded by Klamath Mountains to the west and northwest and by the Sacramento River and Cottonwood Creek to the east and south respectively. Annual precipitation in the subbasin ranges from 27 to 41 inches per year, with precipitation generally increasing from north to west. The entire Redding Basin is estimated to have a storage capacity of 55 million acre-feet (AF). Based on data provided by DWR, water quality in the subbasin is generally good (DWR 2003).

The Redding groundwater basin is not a critically overdrafted groundwater basin and is a medium priority basin (Groundwater Exchange 2020).

Project Site Hydrology and Onsite Drainage

The Project site is located on relatively level terrain situated at an elevational range between 416 and 425 feet AMSL. The Project site contains two seasonal wetlands and two features classified as other waters (Gallaway 2020a).

The average annual precipitation at the Project site is 33.68 inches and the average annual temperature is 62.45°F. The site is sloped between 0 and 3 percent. Soils within the site were gravelly loams with a restrictive layer occurring more than 80 inches deep (Gallaway 2020b).

In the Project Area, the rainy period of the year lasts for 9.6 months, from September 6 to June 24, with a sliding 31-day rainfall of at least 0.5 inches. The most rain falls during the 31 days centered around December 12, with an average total accumulation of 6.6 inches. The least rain falls around July 30, with an average total accumulation of 0.1 inches (Weatherspark 2020).

Shown in *Figure 8* is the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the Project Area (Map No. 06089C1935G). This map shows that portions of the Project site is within the AE flood zone, meaning that the area is within a 100-year flood zone with an identified base flood elevation (FEMA 2011).

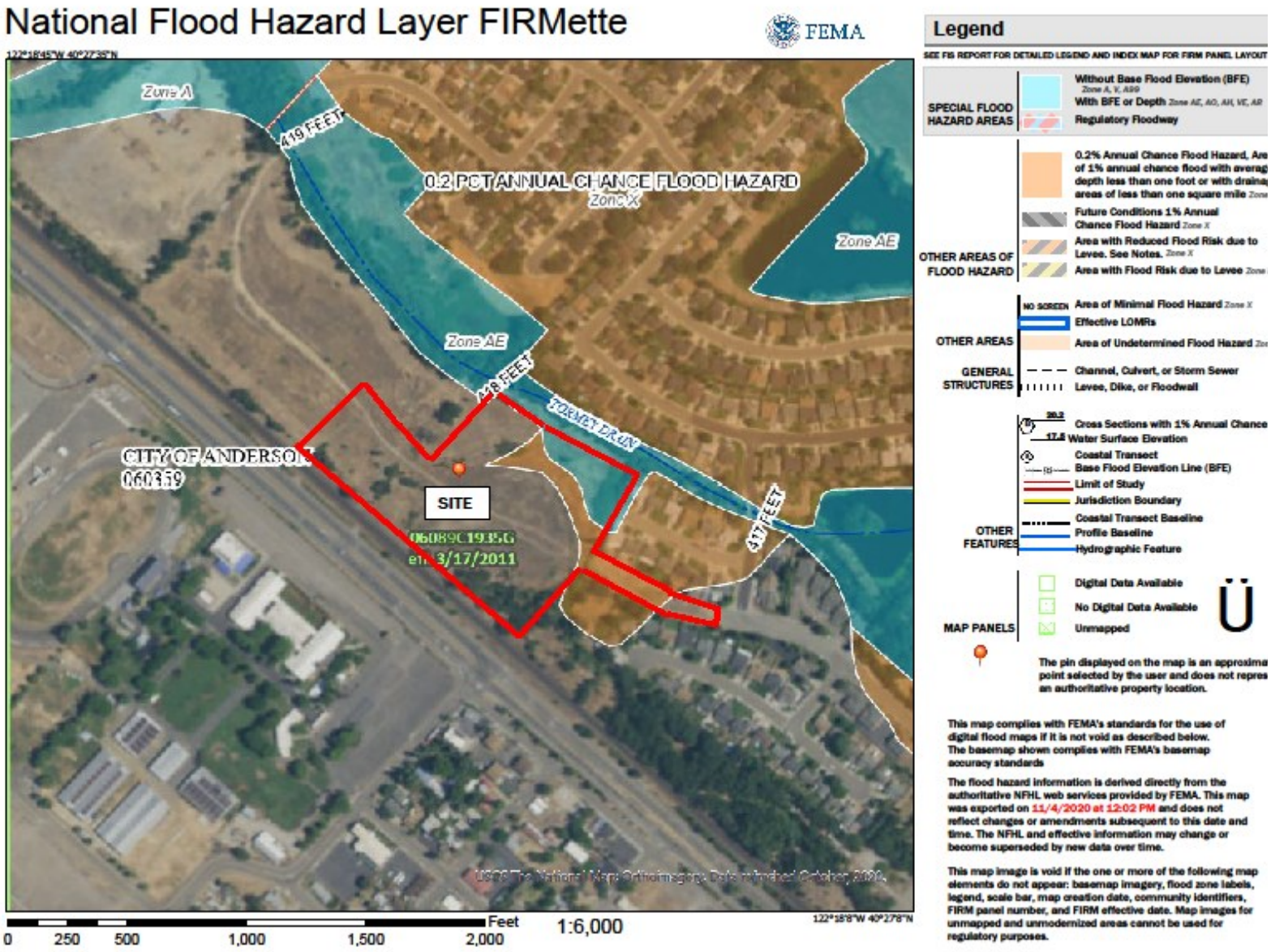


Figure 8. FEMA FIRM Map
2020-157 Anderson East Street

4.10.2 Hydrology and Water Quality (X) Environmental Checklist and Discussion

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 or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐

In accordance with National Pollutant Discharge Elimination System (NPDES) regulations, the State of California requires that any construction activity affecting one acre or more, or discharges from smaller sites that are part of a larger common plan of development or sale, obtain a General Construction Activity Stormwater Permit (General Permit) to minimize the potential effects of construction runoff on receiving water quality. As described previously, the Project may result in future commercial or heavy commercial development. The proposed Tentative Map indicates that proposed parcels sizes would range from 20,000 sq. ft. to 53,618 sq. ft. (gross). Any future potential development that would disturb over one acre would require attainment of a General Permit and the implementation of a SWPPP with minimum BMPs. Performance standards for obtaining and complying with the General Permit are described in NPDES General Permit No. CAS000002, Waste Discharge Requirements, Order No. 2009-0009-DWQ.

General Permit applicants are required to submit to the appropriate regional board Permit Registration Documents for the Project, which include a Notice of Intent (NOI), risk assessment, site map, signed certification statement, an annual fee, and a SWPPP. The SWPPP must include pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills), demonstration of compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, and a detailed construction timeline. The SWPPP must also include implementation of BMPs to reduce construction effects on receiving water quality by implementing erosion control measures and reducing or eliminating non-stormwater discharges.

Examples of typical construction BMPs include, but are not limited to using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; and installing sediment control devices such as gravel bags, berms, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the drainage system or receiving waters. BMPs are recognized as effective methods to prevent or minimize the potential releases of pollutants into drainages, surface water, or groundwater.

The City is subject to the NPDES Municipal Separate Storm Sewer Systems (MS4) permit. The MS4 permit requires, permittees to develop and implement a comprehensive Storm Water Management Program that must include pollution prevention measures, treatment or removal techniques, monitoring, use of legal authority, and other appropriate measures to control the quality of storm water discharged to the storm drains. The MS4 permit also requires the use of low impact design (LID) and an operation and maintenance (O&E) plan. As a result of the required pollution prevention measures, certain BMPs are

required by cities for those projects that do not fall under the General permit. For those future construction activities that disturb less than one acre, the City of Anderson MS4 BMPs would be required during construction and operation.

Further, the BRA performed for the Project identified 0.252 acre of other waters and 0.026 of seasonal wetland within the Project site. In addition, Tormey Drain is located immediately northeast of the Project site. The Project site is also relatively flat, with elevations ranging from 416 - 425 feet AMSL. The level nature of the site reduces the potential for runoff into surface water or stormwater drainages. Compliance with Mitigation Measure **BIO-6**, strict SWPPP compliance, and the use of appropriate BMPs, would reduce potential water quality impacts during construction activities. Implementation of BMPs required as part of the SWPPP, or MS4 and mitigation measure **BIO-6,** would help ensure that the Proposed Project would not create or contribute to any violations of water quality standards or waste discharge requirements. There would be a less than significant impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐

Following completion of potential future commercial or heavy commercial development at the site, water would be supplied by the City's municipal system. The City's water supply is sourced from 10 groundwater wells with an effective capacity of 10,700 AFY. According to the City of Anderson 2015 Urban Water Management Plan, the City supplied approximately 2,150 AF of water to approximately 11,150 people through 3,340 commercial and residential accounts in the year 2015. For the 2010 to 2015 time period, single-family residential comprised 67 percent of demand and commercial/institutional comprised 15 percent of demand. The latest target water use date released, was for 2020. A target of 80 percent of the average 1999-2008 water use, or 184 gallons per capita per day (GPCPD), was set for 2020. Water demand projections for the years 2020, 2025, 2030, and 2035 are anticipated to fall far below the effective well capacity (Anderson 2015).

Potential development which may result due to the Proposed Project may also increase the demand for water in the City for the irrigation of landscaping. However, the City of Anderson and the state of California mandates compliance with the State Model Water Efficient Landscape Ordinance (MWELO). MWELO requirements apply to any landscaping project greater than 500 square feet that requires a permit, plan check or design review. It is anticipated that landscaping for potential future development would exceed 500 square feet, and as such will be required to comply with MWELO. A landscaping project greater than 2,500 square feet would be required to comply with the Performance Compliance Approach, the strictest approach. Thus, the landscaping associated with a potential future construction project would be required to adhere to strict water efficiency and reporting standards. Irrigation controls must be

installed, and only drought-tolerance plants may be planted. Thus, compliance with MWELO would minimize the water use of the landscape component a future development project.

Furthermore, water use for operation of a future commercial or heavy commercial project operation would be subject to the state of California water conservation standards. As mentioned previously, for the 2010 to 2015 time period, single-family residential comprised 67 percent of demand and commercial/ institutional comprised 15 percent of demand (Anderson 2015). The Project would change the land use designation at the site from MDR to C and change the zoning from R-2 to C-3. As such, the Project would encourage development of less intensive land use in terms of water usage. Furthermore, water demand projections for the years 2020, 2025, 2030, and 2035 are anticipated to fall far below the effective well capacity (Anderson 2015). Thus, the Project would not substantially decrease groundwater supplies.

The Proposed Project would have the potential to remove a portion of the Project site's surface area available for groundwater recharge due to the potential for future commercial development to occur on the site. However, according to the City of Anderson, the groundwater supply for the City comes from ten underground located primarily in the City's sphere of influence. The City of Anderson is approximately 6.5 square miles, or 4,160 acres in size. As such, the addition of the impervious surface area on a percentage of the 9.4 acres associated with the potential future development of the site would not significantly impact the ability of groundwater to infiltrate within the basin. In addition, the City's MS4 Phase II permit requires development to use LID construction including techniques for groundwater recharge. Further, design review of future commercial development would ensure that adequate drainage is included within and in the vicinity of the site. The landscaped area required to be incorporated into development in the City would allow for rainwater infiltration. As such, development of this area would only minimally affect the groundwater recharge ability of the Project site. Therefore, the Project would have a less than significant impact on groundwater recharge.

The Project will have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner that would:	☐	☐	☒	☐
i) result in substantial erosion or siltation on- or offsite;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☒	☐	☐

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☒	☐	☐
(iv) impede or redirect flood flows?	☐	☒	☐	☐

i) The Proposed Project would permit future commercial or heavy commercial development to occur on the Project site. The biological resources assessment (BRA) performed for the Project identified 0.252 acre of other waters and 0.026 of seasonal wetland within the Project site. In addition, Tormey Drain is located immediately northeast of the Project site. The Project site is also relatively flat, with elevations ranging from 416 and 425 feet AMSL. The level nature of the site reduces the potential for runoff into surface water or stormwater drainages.

As explained in Section 4.10.2(a), future development on the Project site may a NPDES Construction General Permit prior to the start of a construction phase. Excavation and grading activities associated with the Project will reduce vegetative cover and expose bare soil surfaces making these surfaces more susceptible to erosion. To comply with the requirements of the NPDES Construction General Permit the City would be required to file an NOI with the State of California and submit a SWPPP defining BMPs for construction and post-construction so as to control Project site runoff and sediment transport. Requirements for the General Permit include incorporation of both erosion and sediment control BMPs.

Note that MS4 Permits and SWPPPs are both considered "live" documents and should be kept current by the person responsible for its implementation (USEPA 2007, 2010). Preparation of, and compliance with a required SWPPP would effectively prevent Project on-site erosion and sediment transport off-site. This would reduce potential runoff, erosion, and siltation associated with potential future construction and operation of a commercial or heavy commercial use on the site. In addition, mitigation measure **BIO-6** would mitigate potential impacts to Waters of the United States to be less than significant. As such, the effects of the Project on onsite and offsite erosion and siltation, therefore, would be less than significant.

ii) The Project would include the construction of East Street extension on the Project site. This would include storm drainage infrastructure, which will connect to existing facilities in East Street. This new infrastructure would assist in the controlling of runoff on the site and minimize the potential for on- and off-site flooding. However, as design of these facilities has not yet been determined, the potential to create runoff water which exceeds the capacity of the planned stormwater drainage systems exist. As such, Mitigation Measure **HYD- 1** is required, to reduce this impact to a less than significant level.

Construction and operation of potential future commercial or heavy commercial development may result in the substantial increase of the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite. Future construction would be required by the City to include landscaped area, which will allow for stormwater to infiltrate into the soil and slow the potential runoff from the site. With the implementation of BMPs, which may include the installation of berms or straw wattles during the construction phase and hydroseeding following disturbance outside of the final project footprint, where necessary, the increase in surface runoff will be minimal. However, improvement plans for such facilities has not yet been determined as not building construction is planned as a part of the Proecjt. As such, the drainage pattern at the Project site, as well as surface runoff conditions after implementation of future commercial development, may result in onsite or offsite flooding. Therefore, implementation of Mitigation Measure **HYD-1** is required to reduce the Proposed Project's future impacts to a less than significant impact with regard to causing flooding onsite or offsite.

iii) See discussion of Issues i) and ii), above. Future development would be required to include necessary drainages through the building permit and grading permit processes. In addition, future development would be required to include a landscaped area, which would allow water to infiltrate rather than run off.

However, without specific site improvement plans for future commercial uses, polluted runoff still has potential to result due to construction and operation as stormwater drainage and treatment facilities are unknown at this time. Polluted runoff from the site during potential future construction and operation could include sediment from soil disturbances, oil and grease from construction equipment, and pollutants such as trash and debris. Compliance with NPDES permit requirements and City MS4 requirements would ensure that BMPs would be implemented during the construction phase to effectively minimize excessive soil erosion and sedimentation and eliminate non-stormwater discharge off-site. To ensure that are stormwater drainage and treatment facilities are designed and implemented accordingly, Mitigation Measure **HYD-2** is required. Implementation of Mitigation Measure HYDRO-2 would reduce impacts associated with stormwater volumes and polluted runoff during the construction and operation of the Project to a less than significant level.

Activities associated with operation of the potential future development would contribute to stormwater flow and polluted runoff to a degree, as the Project will increase impervious surface area by less than 141,266 square feet. However, as discussed above, development would be required to include stormwater drainage and a planned landscape area. The Project would also require the construction of curbs and gutters as necessary to control runoff. Following implementation of these runoff reduction measures and Mitigation Measure **HYD-2**, runoff would be minimized and runoff from the site is not expected to be of sufficient quantity to overwhelm existing and proposed stormwater drainage facilities. The Project-induced development would not be a substantial additional source of polluted runoff. As such, the Project's impact during operation would be considered less than significant.

iv) FEMA flood hazard maps (Map No. 06089C1935G) shows that portions of the Project site are in Zone AE. Any future development within those areas would be required to comply with the City of Anderson Municipal Code Chapter 15.22 Flood Damage Prevention, including Section 15.22.080 - Provisions for Flood Hazard Reduction. Section 15.22.080 has a variety of requirements to reduce potential flooding impacts such as: requiring elevation of the lowest floor to be above the flood elevation and floodproofing of all new construction located in the flood zone, standards for new utilities limiting potential infiltration of flood water and discharge from the utility and adequate drainage to reduce exposure to flood hazards for all subdivision as well as prohibition of encroachments in to a floodway. Compliance with Chapter 15.22 would reduce the potential for flood impacts including those related to impeding or redirecting flood flows. Therefore, implementation of the Project will have a less than significant impact related to impeding or redirecting flood flows.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐

As discussed previously, Municipal Code Chapter 15.22 requires that all new sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters. Additionally, Chapter 15.22 requires electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.. Therefore, implementation of the Proposed Project and potential future commercial development would have a less than significant impact related to the release of pollutants due to project inundation.

According to the California Dam Breach Inundation Map, the Project site is not located within the inundation area of any dams (DWR 2020a).

Additionally, dams are regulated by DWR's Division of Safety of Dams and are routinely inspected during their impoundment life, which includes monitoring for compliance with seismic stability standards. Prior to the terrorist attacks of September 11, 2001, public information was available that provided structural ratings for dams throughout the nation. Since that time, this information, as well as, dam inundation areas, have been classified and is not readily available. Thus, dam failure is not considered a reasonably foreseeable event, and the Proposed Project would not affect dam operations. As such, the Proposed Project would have a less than significant impact from dam or levee failure.

Further, the Project site is not located within a potential tsunami or seiche inundation area as no large bodies of water are within the area. As such, damage due to a seiche, a seismic-induced wave generated in a restricted body of water would not occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

The City of Anderson is a participating member of the Enterprise Anderson Groundwater Sustainability Agency (EAGSA) for the Anderson Subbasin. The EAGSA was formed by Memorandum of Understanding (MOU) agreed to by the City of Anderson, the County of Shasta, the Clear Creek Community Services District (CCCSD), the Bella Vista Water District, the Anderson Cottonwood Irrigation District (ACID), and the City of Redding. The EAGSA is tasked with writing the groundwater sustainability plan (GSP) for the Anderson Subbasin. The EAGSA is developing water management tools which participating members, including the City of Anderson, will implement to sustainably manage groundwater upon completion of groundwater sustainability plan (GSP). The GSA aims to have the draft GSP completed by December 2020. Future development of the Project site would be managed sustainably in accordance with California state law promulgated by DWR and per the guidance promulgated by the Anderson Subbasin GSP (Redding 2020). Neither the Project nor future project-induced commercial development would conflict with or obstruct implementation of the GSP. As such, the Project would have no impact on the implementation of the groundwater management plan.

4.10.3 Mitigation Measures

HYD-1: **Stormwater Retention and Detention.** The improvement plans for subdivision construction and all individual lot construction shall provide stormwater detention and retention along with a drainage report that demonstrates that the receiving basin watersheds will not have an increase in peak stormwater flows at any location downstream for the 10-year, 25-year and 100-year return periods. Stormwater detention, retention and engineering reports shall be approved by the City Engineer prior to issuance of grading permits.

Timing/Implementation: *Prior to issuance of grading permit*

Monitoring/Enforcement: *The City of Anderson*

HYD-2: **Stormwater Treatment.** The improvement plans for subdivision construction and all individual lot construction shall provide stormwater treatment in accordance with the State Water Quality Control Board Phase II Small MS4 General Permit. Water balance calculations and supporting information, when applicable, shall be approved by the City Engineer prior to issuance of grading permits. An operation and maintenance (O&M) plan shall be prepared for all treatment related site design and stormwater treatment measures. The O&M plan shall be prepared by the applicant and approved by the City Engineer prior to issuance of grading permits or building permits, as applicable.

Timing/Implementation:	*Prior to issuance of grading permit or building permit, as applicable*
Monitoring/Enforcement:	*The City of Anderson*

4.11 Land Use and Planning

4.11.1 Environmental Setting

The Project site consists of a currently undeveloped 9.4-acre field situated northeast of Highway 273, southeast of additional undeveloped land, and just southwest and northwest of developed neighborhoods. In addition, the Shasta District Fairgrounds and multi-family residential developments are located just on the opposite side of Highway 273 as illustrated in *Figure 2* and *Figure 3*.

The Project involves a tentative subdivision map on approximately nine total acres. Of those nine acres, 5.85 total acres of it will be rezoned and re-designated to allow for commercial development. The Project does not propose development at this time, but commercial development will be made possible due to the General Plan amendment to change land use and rezone proposed. Existing parcels 201-890-038 and 201-890-038 will change from their current designation of MDR to C and from their current zoning of R-2 to C-3. Existing parcels 201-930-009 and 201-720-041 will remain designated C and zoned C-3. As outlined in Table 2.1-2, the Project would result in the loss of up to 116 potential residential units and the addition of up to 38,510 square feet of commercial or heavy commercial space, as compared to existing conditions.

The City of Anderson General Plan states the C designation is generally reserved for "high activity" land uses, including retail service, repair, storage, and more.

4.11.2 Land Use and Planning (XI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒

Residential neighborhoods are located to the northeast and southeast of the Project site. The land located immediately to the northwest of the site is undeveloped and SR 273 and train tracks are located just to the southwest. The Project would potentially lead to the development of commercial or heavy commercial uses between the neighborhoods and the highway. Thus, the Project would encourage more land use diversity in the Project area. However, the Project would not divide an established community. As such, the Proposed Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

As explained above, the Project is a tentative subdivision map to divide three parcels into fifteen parcels on approximately nine acres. Of the approximately nine acres, 5.85 acres would be rezoned and re-designated to permit commercial or heavy commercial uses consistently across the site. Future development would be compatible with the new land use and designation at the site. The Project would result in the loss of up to116 potential residential units and the addition of up to 38,510 square feet of commercial or heavy commercial space, as compared to existing conditions. The appropriate applications to complete the tentative subdivision map, rezoning, and re-designation must be reviewed and approved by the City. In addition, future development would be required to undergo site plan review.

Future development would be required by the City to comply with the requirements of the General Plan. As analyzed in each section of this IS/MND, the Project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impact would occur.

4.11.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.12 Mineral Resources

4.12.1 Environmental Setting

The state-mandated Surface Mining and Reclamation Act of 1975 requires the identification and classification of mineral resources in areas within the State subject to urban development or other irreversible land uses that could otherwise prevent the extraction of mineral resources. These designations categorize land as Mineral Resource Zones (MRZs, *MRZ-1* through *MRZ-4*).

Neither the City, Mineral Resources Data System, nor the California DOC Division of Mine Reclamation (DMR), identify the Project site as a mineral resource zone (DMR 2018, USGS 2011).

4.12.2 Mineral Resources (XII) Environmental Checklist and Discussion

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?	☐	☐	☐	☒

As discussed above, neither Shasta County nor DMR identify the Project site as having the mineral resources. Therefore, the Project would have no impact in this area.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

The Project site is not identified as a mineral resource recovery site by Shasta County or DMR. There would be no impact in this area.

4.12.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.13 Noise

4.13.1 Noise Fundamentals

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn}/CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10-dBA "weighting" added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

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. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2011). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed (FHWA 2011).

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about 5 dBA (FHWA 2006), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction 35 dBA or greater (WEAL 2000). To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the "line of sight" between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend lengthwise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver.

The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer residential units is generally 30 dBA or more (HMMH 2006).

Sensitive Noise Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and

prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The Project site is positioned just northeast of SR 273. Residential development is located to the northeast and the southeast of the Project site. The nearest noise-sensitive land use receptors are two single- family residences located immediately southeast of the Project site.

Existing Ambient Noise Environment

The Project site is characterized by relatively flat and undeveloped land and is surrounded by a mix of residential and commercial land uses. The Project Area is impacted by typical urban noise sources experienced in an urban area, such as traffic, trains on the nearby track, and day-to-day urban activities. Due to the proximity of the Project site to SR 273, mobile sources are the dominant source of noise affecting the area. In addition, trains intermittently pass by the Project site, along the train tracks located between the Project site and SR 273. Noise generated by freight rail is primarily generated by the train's steel wheels rolling on steel rails. This rolling noise increases in direct proportion to increases in train speed, and also increases substantially when impacts occur as train wheels traverse the rail gaps and joints of special trackwork for crossovers and turnouts. In order to quantify existing ambient noise levels in the Project Area, ECORP Consulting, Inc. conducted three short-term noise measurements on September 22, 2020. The noise measurement sites were representative of typical existing noise exposure in the vicinity of and immediately adjacent to the Project site. The three 15-minute measurements were taken between 9:59 a.m. and 11:06 a.m. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the daytime. The passing of the train was captured in the last minute of the fifteen-minute measurement recorded at Location 1. L_{eq} is the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night. The average noise levels and sources of noise measured at each location are listed in in Table 4.12-1.

Table 4.12-1. Existing (Baseline) Noise Measurements

Location Number	Location	L_{eq} dBA	L_{min} dBA	L_{max} dBA	Time
1	The dead end of Josh Road, in a neighborhood	43.3	35.5	59.5	9:59 a.m. – 10:14 a.m.
2	Bike trail near Nathan Dr.	43.5	34.3	54.9	9:23 a.m. – 9:38 a.m.
3	West of Highway 273, near Chevron	65.3	40.2	87.7	10:51 a.m. – 11:06 a.m.

Notes: Measurements were taken by ECORP with a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. See Appendix D1 for noise measurement outputs.

As shown in Table 4.12-1, the ambient recorded noise levels range from 43.3 to 65.3 dBA L_{eq} near the Project site. The most common noise in the Project vicinity is produced by automotive vehicles (e.g., cars, trucks, buses, motorcycles) traveling on SR 273, and adjacent streets. Vehicular noise varies with the volume, speed and type of traffic. Slower traffic produces less noise than fast-moving traffic. Trucks typically generate more noise than cars. Infrequent or intermittent noise also is associated with vehicles, including sirens, vehicle alarms, slamming of doors, trains, garbage and construction vehicle activity and honking of horns. These noises add to urban noise and the intermittent passage of the train and are regulated by a variety of agencies.

Existing roadway noise levels were calculated for the main Caltrans roadway segment in the Project vicinity; SR 273 between North Street and Alexander Street. This roadway segment traverses the southwestern edge of the Project site. Existing roadway noise levels were calculated for this roadway segment using the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) (see Appendix D2) and traffic volumes from traffic volumes from Caltrans (Caltrans 2018). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along the nearby roadway segment is presented in Table 4.12-2.

Table 4.12-2. Existing (Baseline) Traffic Noise Levels

Roadway Segment	Surrounding Uses	CNEL at 100 feet from Centerline of Roadway
State Route 273		
Between North Street and Alexander Avenue	Commercial, Residential	60.9

Sources: Traffic noise levels were calculated by ECORP using the FWHA roadway noise prediction model in conjunction with traffic volumes from Caltrans (Caltrans 2018). Refer to Appendix D2 for traffic noise modeling assumptions and results.

As shown, the existing traffic-generated noise level on the segment of SR 273 traversing the Project site is approximately 60.9 dBA CNEL at 100 feet from the centerline of the roadway. CNEL is 24-hour average noise level with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. It should be noted that the modeled noise levels depicted in Table 4.12-2 differ from measured levels in Table 4.12-1 because the measurements represent noise levels at different locations around the Project site and are also reported in different noise metrics (e.g., noise measurements are the L_{eq} values and traffic noise levels are reported in CNEL).

The nearest point of the Project site to SR 273 is located approximately 145 feet from the centerline of the roadway. As such, slightly reduced noise levels are experienced at the Project site.

Vibration Fundamentals

Ground vibration can be measured several ways to quantify the amplitude of vibration produced. This can be through peak particle velocity or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively. Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

4.13.2 Noise (XIII) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐

Construction Noise Impacts

Construction of the East Street extension, site grading and future potential construction of commercial or heavy commercial uses as a result of the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., building construction, paving). Noise generated by construction equipment, including dozers, loaders, and excavators, can reach high levels. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive receptors in the vicinity of the construction site. For the purposes of this analysis, the construction of a 70,000 square foot heavy commercial building is considered; consistent with the Traffic Impact Review prepared for the Project (GHD 2020). Construction would include site preparation, grading, building construction, paving, and architectural coating.

The City does not promulgate numeric thresholds pertaining to the noise associated with construction, yet instead limits the time that construction can take place. Specifically, the City of Anderson Municipal Code Section 8.30.090 - *Prohibited Acts,* prohibits construction noise from occurring during certain times. The Code section states that operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of ten p.m. and seven a.m.

the following day, on weekdays and Saturdays, or at any time on Sundays or holidays violates the provisions of Section 8.30.070. As such, construction noise is permitted between the hours of seven a.m. and ten p.m. Furthermore, the City of Anderson is a developing urban community and construction noise is generally accepted as a reality within the urban environment. Additionally, construction would occur through the Project site and would not be concentrated at one point. Therefore, noise generated during construction activities, as long as conducted within the permitted hours, would not violate City noise standards.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptor in the Project vicinity, the construction equipment noise levels were calculated using the Roadway Noise Construction Model for the site preparation, grading, building construction, paving and painting. Onsite building construction, paving and painting are modeled to occur simultaneously. These noise levels were compared against the construction-related noise level threshold established in the *Criteria for a Recommended Standard: Occupational Noise Exposure* prepared in 1998 by the National Institute for Occupational Safety and Health (NIOSH). A division of the US Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receptors.

The anticipated short-term construction noise levels generated for the necessary equipment is presented in Table 4.12-3. Consistent with Federal Transit Association (FTA) recommendations for calculating construction noise, construction noise was measured from the center of the Project site (FTA 2018). The nearest noise-sensitive land use receptors are two single- family residences located immediately southeast from the edge of the Project site.

Table 4.12-3. Onsite Construction Average (dBA) Noise Levels by Receptor Distance and Construction Equipment – Unmitigated

Equipment	Estimated Exterior Construction Noise Level @ Nearest Residence	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Site Preparation			
Rubber Tired Dozers (3)	61.6 (each)	*85.0*	**No**
Tractors/Loaders/Backhoes (4)	57.5 (each)	*85.0*	**No**
Combined Site Preparation Equipment	**65.6**	*85.0*	**No**
Grading			
Grader (1)	65.0	*85.0*	**No**

Table 4.12-3. Onsite Construction Average (dBA) Noise Levels by Receptor Distance and Construction Equipment – Unmitigated

Equipment	Estimated Exterior Construction Noise Level @ Nearest Residence	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Rubber Tired Dozers (1)	61.5	*85.0*	**No**
Tractors/Loaders/Backhoes (3)	57.5 (each)	*85.0*	**No**
Excavator (1)	60.7	*85.0*	**No**
Combined Grading Equipment	**68.7**	*85.0*	**No**
Building Construction, Paving, and architectural coating			
Cranes (1)	56.5	*85.0*	**No**
Forklifts (3)	63.4 (each)	*85.0*	**No**
Generator Sets (1)	61.6	*85.0*	**No**
Tractors/Loaders/Backhoes (3)	57.5 (each)	*85.0*	**No**
Welders (1)	54.0	*85.0*	**No**
Pavers (2)	58.1	*85.0*	**No**
Paving Equipment (2)	58.1 (each)	*85.0*	**No**
Rollers (2)	56.9 (each)	*85.0*	**No**
Air Compressors (1)	57.6	*85.0*	**No**
Combined Building Construction, Paving and Painting Equipment	**71.6**	*85.0*	**No**

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Appendix D3 for Model Data Outputs.

Notes: Construction equipment used during construction derived from CalEEMod 2016.3.2. CalEEMod is designed to calculate air pollutant emissions from construction activity and contains default construction equipment and usage parameters for typical construction projects based on several construction surveys conducted in order to identify such parameters.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

As shown in Table 4.12-3, during construction activities no individual or cumulative piece of construction equipment would exceed the NIOSH threshold of 85 dBA L_{eq} at the nearest sensitive receptors. A less than significant impact would occur.

Project construction would result in additional traffic on adjacent roadways over the time period that construction occurs. According to the CalEEMod model, which is used to predict air pollutant emissions associated with Project construction, including those generated by worker commute trips, the maximum number of construction workers traveling to and from the Project site on a single day would be 185 (worker trips and hauler trips during construction, paving, and painting). According to the California Department of Transportation (Caltrans) *Technical Noise Supplement to the Traffic Noise Analysis Protocol*

(2013), doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). The primary arterial roadway providing access to the Project site is SR 273. According to traffic counts recorded by Caltrans (Caltrans 2018), the segment of SR 273 traversing the Project site supported 8,900 average daily trips (ADT) in 2017. Thus, the Project construction would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. A less than significant impact would occur.

Operational Offsite Traffic Noise Impacts

Operation of potential future development at the Project site would also result in additional traffic on adjacent roadways within the City of Anderson, thereby increasing vehicular noise in the Project area. As stated previously, the primary roadway providing access to the Project site is SR 273. This is also the primary source of traffic-generated noise in the Project vicinity. According to traffic counts recorded by Caltrans (Caltrans 2018), the segment of SR 273 traversing the Project site supported 8,900 average daily trips (ADT) in 2017. Per the Traffic Impact Review prepared for the Project (GHD 2020), the Project would contribute an average of 780 daily trips on weekdays. According to Caltrans *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013), doubling of traffic on a roadway would result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). The addition of approximately 780 daily trips to the existing 8,900 daily vehicle trips would not result in a doubling of traffic on SR 273, the main source of traffic noise in the Project vicinity. Thus, the contribution of traffic noise due to potential future development to existing traffic noise would not be perceptible.

The increase in traffic due to potential future development due to the Project would result in an increase in traffic in surrounding cities as employees, delivery trucks, and visitors to the Project site travel to and from the surrounding cities. Cities located adjacent to Anderson include the City of Redding to the North and Cottonwood to the south. The Project is anticipated to generate 780 total trips per day and would not result in a doubling of traffic on any given roadway in surrounding cities. As such, there is no impact.

Operational Onsite Noise Impacts

The City of Anderson's Municipal Code (Chapter 8.30, *Noise Control*) regulates non-transportation noise sources (i.e., stationary sources). These standards are designed to protect people from objectionable non-transportation noise sources such as machinery, pumps, and HVAC units. The City of Anderson noise exterior standards are summarized in Table 4.12-4 below.

Table 4.12-4. City of Anderson Exterior Noise Standards

Receiving Land Use Category	Time Period	Noise Level (dBA) Noise Zone Classification		
		Rural Suburban	Suburban	Urban
One- and Two- Family Residential	10 p.m.—7 a.m.	40	45	50
	7 a.m.—10 p.m.	50	55	60
Multiple dwelling residential public space	10 p.m.—7 a.m.	45	50	55
	7 a.m.—10 p.m.	50	55	60
Limited commercial, some multiple dwellings	10 p.m.—7 a.m.		55	
	7 a.m.—10 p.m.		60	
Commercial	10 p.m.—7 a.m.		60	
	7 a.m.—10 p.m.		65	
Light industrial	Any time		70	
Heavy Industrial	Any time		75	

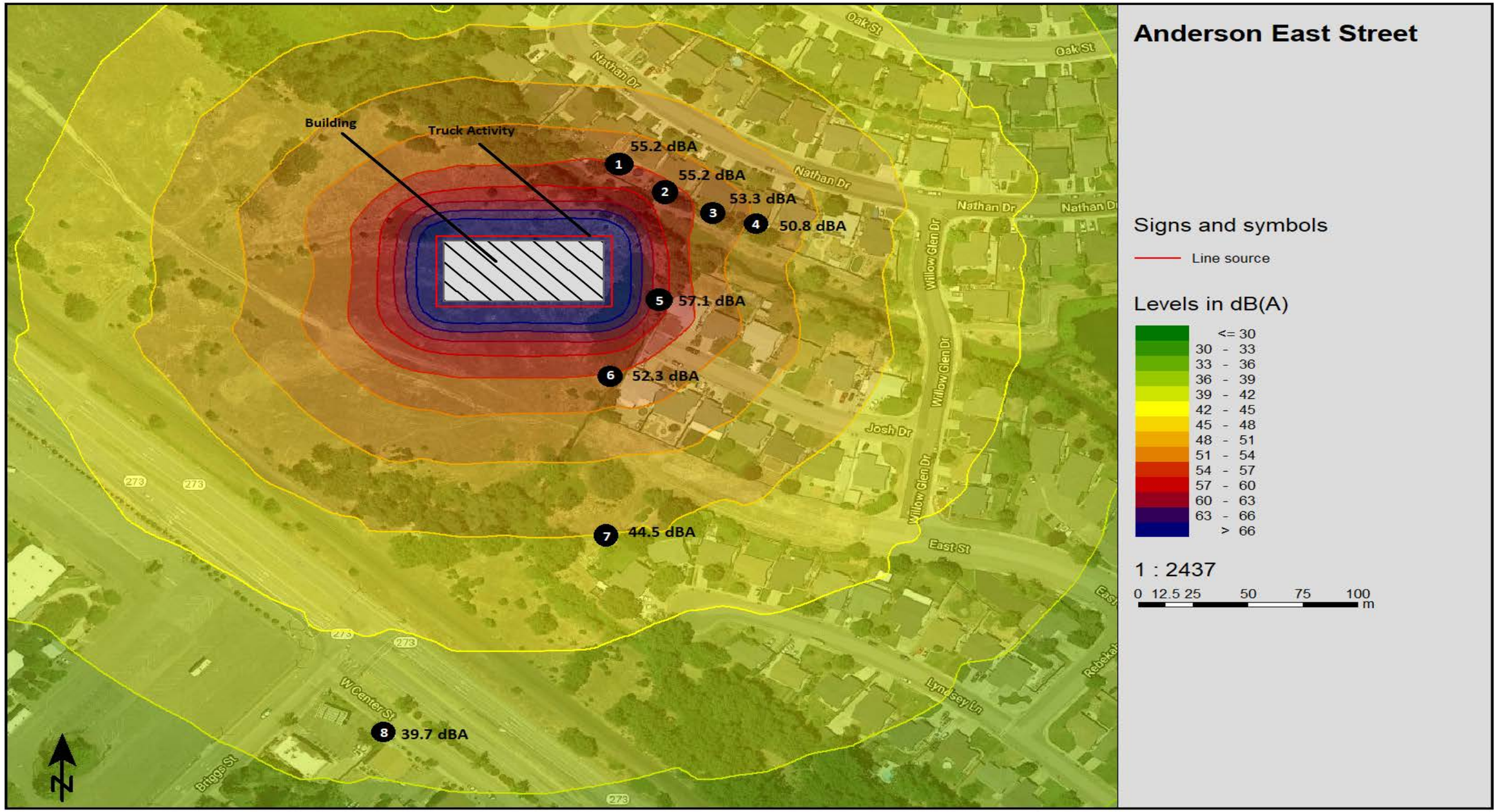
The nearest noise-sensitive land use receptors are two single- family residences located immediately southeast of the Project site. The adjacent residences fall into the "one- and two-family residential" land use category and are located in an urban area of the City. Thus, the Project would be subject to the 50 dBA noise standard from 10:00 p.m. to 7:00 a.m. and the 60 dBA standard from 7:00 a.m. to 10:00 p.m.

As explained previously, no building development resulting in new uses is currently proposed at the Project site. However, the rezoning and redesignation of land to allow for commercial or heavy commercial use may result in future buildout of the site. The most intense potential future land use which may occur at the site was modeled using the SoundPLAN 3D noise model to generate a conservative model. Consistent with the Traffic Impact Review prepared for the Project (GHD 2020), the operation of a 70,000 square foot heavy commercial building with delivery trucks idling, maneuvering, and using a backup beeper on all sides of the building was modeled for onsite noise. The actual future development on the site would likely be less intensive and therefore would generate less noise then presented in this analysis. The results of this model can be found in Appendix D4. Table 4.12-5 shows the predicted Project noise levels at eight locations in the Project vicinity, as predicted by SoundPLAN. Two of these locations (Site Locations 3 and 5) are where the existing baseline noise measurements were taken (see Table 4.12-1), while the additional six locations (Site Locations 1-2, 4, & 6-8) are located at nearby homes located along the northeastern and southeastern boundaries of the site, between East Street and Lyndsey Lane, and across SR 273 from the site. In addition to Table 4.12-5, a noise contour graphic (*Figure 9. Project Onsite Source Noise Generation*) has been prepared to depict the predicted noise levels in the Project vicinity as a result of onsite Project operations.

Table 4.12-5. Modeled Operational Noise Levels

Site Location	Location	Existing Baseline Noise Measurements (L_{eq} dBA)	Modeled Operational Noise Attributable to Project (L_{eq} dBA)	City Urban Exterior Standards (dBA) (Day/Night)	Exceed Standard? (Day/Night)
1	Seventh house from Willow Glenn Drive, along Nathan Drive	N/A	**55.2**	60/50	**No/Yes**
2	Sixth house from Willow Glenn Drive, along Nathan Drive	N/A	**55.2**	60/50	**No/Yes**
3	Fifth house from Willow Glenn Drive, along Nathan Drive	43.5	**53.3**	60/50	**No/Yes**
4	Fourth house from Willow Glenn Drive, along Nathan Drive	N/A	**50.8**	60/50	**No/Yes**
5	House at dead end on north side of Josh Drive	43.3	**57.1**	60/50	**No/Yes**
6	House at dead end on south side of Josh Drive	N/A	**52.3**	60/50	**No/Yes**
7	House located at the end of residential area, between East Street and Lindsey Lane	N/A	**44.5**	60/50	**No/No**
8	Multi-family residential unit located across Hwy 273 from the Project site	N/A	**39.7**	60/55	**No/No**

Source: Stationary source noise levels were modeled by ECORP using SoundPLAN 3D noise model. Refer to Appendix D4 for noise modeling assumptions and results.



Map Date: *10/6/2020*
Photo (or Base) Source: *SoundPLAN 2020*

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 9. Onsite Noise Propagation

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As shown in Table 4.12-5 and *Figure 9*, future development would not surpass the daytime noise standard at any existing or planned receptor. However, in the case that future commercial or heavy commercial development operates any time from 10:00 p.m. to 7:00 a.m. (nighttime), operations would potentially exceed the City's nighttime noise standard at the adjacent residential homes located to the northeast and southeast of the Project site. The City's regulations with respect to noise are included in the Noise Control Section of the City's Municipal Code. As depicted in the Stationary Source Land Use Noise Standards (Table 4.12-4), the maximum exterior noise standards in an urban area for one- and two- family residential development are 60 dBA from 7:00 a.m. to 10:00 p.m. (daytime) and 50 dBA from 10:00 p.m. to 7:00 a.m. (nighttime). The nearest sensitive receptors to the Project site are two single-family homes. As previously described, stationary source noise levels have been calculated with the SoundPLAN 3D noise model, which predicts noise propagation based on the location, noise level, and frequency spectra of the noise sources as well as the geometry and reflective properties of the local terrain, buildings and barriers. Due to the conceptual nature of potential future buildout at the Project site, a detailed site plan containing building size, orientation and location of truck loading docks is currently unknown. As such, a worst-case analysis was preformed that matches the predicted land use utilized in the Traffic Impact Review prepared for the Project (GHD 2020). As explained previously, noise generated from the operation of a 70,000 square foot heavy commercial building with delivery trucks idling, maneuvering, and using a backup beeper on all sides of the building was modeled. Actual operational noise upon future buildout may generate less noise. Nevertheless, because actual future development is unknown at this time but future commercial uses in compliance with the C-3 zoning may be developed as a result of approval of the Proposed Project, there is the potential to exceed the City's nighttime noise standards at nearby single-family residences. As such, mitigation measure **NOI-1** is required.

Mitigation measure **NOI-1** would reduce operational noise levels below the exterior nighttime noise standard at the sensitive noise receptors to the northeast and southeast of the Project site. Additionally, the manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer residential units is generally 30 dBA or more (HMMH 2006). As such, interior noise levels at adjacent residences would be significantly reduced compared with exterior noise levels. The City does not promulgate interior noise standards.

With implementation of mitigation measure **NOI-1**, the operational noise associated with potential future commercial or heavy commercial development would fall below the City's daytime and nighttime standards at nearby sensitive receptors. A less than significant impact would occur with mitigation incorporated.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒

Construction-Generated Vibration

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to potential future development would be primarily associated with short-term construction-related activities. Construction at the Project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is not anticipated that pile drivers would be necessary during Project construction. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 4.12-6.

Table 4.12-6. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity (PPV) at 25 Feet (inches per second)
Large Bulldozer	0.089
Pile Driver	0.170
Caisson Drilling	0.089
Loaded Trucks	0.076
Rock Breaker	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003

Source: FTA 2018; Caltrans 2020

The City does not regulate vibrations associated with construction beyond the following statement contained in Section 8.30.090 – *Prohibited Acts*.

> *Vibration. Operating or permitting the operation of any device that creates a vibration which is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property or at one hundred fifty feet (forty-six meters) from the source if on a public space or public right-of-way.*

For comparison purposes, the Caltrans (2020) recommended standard of 0.2 inch per second peak particle velocity (PPV) with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings (Caltrans 2020).

Based on the representative vibration levels presented for various construction equipment types in Table 4.12-5 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels at the nearest offsite structure, located approximately 318 feet distant from the center of the Project site. The FTA provides the following equation: [PPVequip = PPVref x $(25/D)^{1.5}$]. Table 4.12-7 presents the expected Project related vibration levels at a distance of 318 feet.

Table 4.12-7. Project Construction Vibration Levels at 318 Feet

Receiver PPV Levels (in/sec)[1]							Peak Vibration	RMS Velocity Levels[2]	Threshold	Exceed Threshold
Large Bulldozer	Pile Driver	Drilling	Loaded Trucks	Rock Breaker	Jack-hammer	Small Bulldozer				
0.0037	0.0019	0.0016	0.0016	0.0019	0.0077	0.0006	0.0037	0.002	*0.2*	**No**

Notes:
[1]Based on the Vibration Source Levels of Construction Equipment included on Table 4.12-5 (FTA 2018; Caltrans 2020).
[2]Vibration levels in PPV are converted to root mean square (RMS) velocity using a 0.70 conversion factor identified by Caltrans (2020),

As shown, groundborne vibrations attenuate rapidly from the source due to geometric spreading and material damping. Geometric spreading occurs because the energy is radiated from the source and spreads over an increasingly large distance while material damping is a property of the friction loss which occurs during the passage of a vibration wave. As shown in Table 4.12-6, the nearest structures at 318 feet distant from the center of the construction site would not experience groundborne levels in exceedance of City standards, even in the rare case that pile diving equipment is used. No impact would occur.

Operational-Generated Vibration

Operation of potential future development due to the Project would not include the use of any stationary equipment that would result in excessive groundborne vibration levels. However, the Project allows for the placement of structures within proximity to the existing industrial railway corridor along the southwest boundary of the site, a source of groundborne vibration. According to the FTA (2018), groundborne vibration from heavy rail is common when there is less than 50 feet between the track and building foundations. Furthermore, while each building has different characteristics relative to structure-borne vibration, in general, the heavier the building, the lower the levels of vibration. Freight train operations create vibration events that last approximately two minutes and It is extremely rare for vibration from train operations to cause substantial or even minor cosmetic building damage (FTA 2018). Older, historic buildings often considered fragile are the predominate source of concern from rail-related vibration (FTA 2018). Since any future development on the site would consist of modern buildings constructed in

conformance with the latest building standards, future development would not be expected to be impacted by train-related vibration. For this reason, no impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project Area to excessive noise levels?	☐	☐	☐	☒

The Project site is not located within an airport land use plan and is not within two miles of an airport. The Redding Airport is the nearest airport to the Project site, located approximately 3.0 miles to the north. Implementation of the Proposed Project would not affect airport operations nor result in increased exposure of noise-sensitive receptors to aircraft noise. For this reason, no impact would occur.

4.13.3 Mitigation Measures

NOI-1: **Operational Noise Control.** For any future development located on proposed parcels 5 through 15 that are proposed to operate between the hours of 10:00 p.m. to 7:00 a.m., the preparation of an acoustical analysis will be required that quantifies onsite noise sources specific to said future development. In the case that noise sources are calculated to exceed City noise standards, noise-reduction measures must be implemented to the extent that onsite noise sources would not exceed City noise standards at any receiving receptor. Examples of potential noise-reduction measures include, but are not limited to, the construction of solid noise barriers at the site boundary and/or the redesign of the future development to locate noise sources further from noise receptors.

Timing/Implementation: *During operation of future commercial or heavy commercial development*

Monitoring/Enforcement: *The City of Anderson*

4.14 Population and Housing

4.14.1 Environmental Setting

The Project site is located in a developed area of the City of Anderson. According to the California Department of Finance (DOF), which provides estimated population and housing unit demographics by year throughout the State, the City's population increased 6.9 percent between 2010 and 2019, from 9,932 to 10,671. DOF estimates that there were 4,490 total housing units in the City, and a 5.2 percent vacancy rate as of January 1, 2019. The average household size was estimated to be 2.50 persons per household during the same time period (DOF 2019).

4.14.2 Population and Housing (XIV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒

The Project does not include the construction of any new homes or businesses. As explained previously, the Project would redesignate and rezone two existing parcels to allow for commercial or heavy commercial use, rather than residential use. The Project would result in the loss of up to 116 potential residential units and the addition of up to 38,510 square feet of commercial or heavy commercial space, as compared to existing conditions.

As such, the Project will not induce population growth significantly, but may result in additional employment opportunities. Therefore, direct or indirect increases in population growth would not occur as a result of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No persons or residences would be displaced or removed as a result of the Proposed Project, and the Project would have no impact in this area.

4.14.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.15 Public Services

4.15.1 Environmental Setting

Public services include fire protection, police protection, parks and recreation, and schools. Generally, impacts in these areas are related to an increase in population from a residential development. Levels of service are generally based on a service-to-population ratio, except for fire protection, which is usually based on a response time.

Police Services

Police protection services at the project site are provided by the City of Anderson Police Department. The police department is located at 2220 North St, Anderson, CA 96007, approximately 0.50 road miles southeast of the Project site. Additionally, the Shasta County Sheriff Department is located approximately eleven miles north of the Project site. This agency may provide additional support to the Police Department in case of an emergency.

Fire Services

Fire protection services for the Project site are provided by the City of Anderson Fire Department. The fire station is located at 1925 Howard St, Anderson, CA 96007, approximately 1.0 road miles southeast of the Project site.

Schools

The area is served by the Cascade Union Elementary School District and the Anderson Union High School District. Cascade Union Elementary School District includes four elementary and middle schools. Anderson Union High School District includes five high schools. The nearest schools to the site are Anderson New Technology High School, 0.4 mile southeast of the Project site by car, and Cascade Union Elementary School, one mile south of the Project site by car. The Project, which may induce future commercial or heavy commercial development, would not result in a significant direct increase students.

Parks

Recreational opportunities for both youth and adults are varied and plentiful in the Project Area. Whiskeytown Lake and Shasta Lake, each only about a thirty-minute drive from the Project site, are common recreation areas. In addition, the nearby Sacramento River passes nearby the Project site and provides opportunities for boating and fishing. In addition, the City of Anderson manages Anderson River Park and Volante Park. Anderson River Park is a 440-acre park with recreational facilities and walking, biking, and horseback riding trails. Volante Park includes a wetland hiking trail, baseball/ softball fields, and a skate area (Anderson 2020b).

Other Public Facilities

Other public facilities found in the Project vicinity include the Anderson Library and public lands owned and administered by the Bureau of Land Management and the U.S. Forest Service.

4.15.2 Public Services (XV) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	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?	☐	☐	☒	☐
	Police Protection?	☐	☐	☒	☐
	Schools?	☐	☐	☐	☒
	Parks?	☐	☐	☐	☒
	Other Public Facilities?	☐	☐	☐	☒

Police Services

The Project is located approximately 0.5 mile from the City of Anderson Police Department. The Proposed Project would not result in a significant increase in demand for police protection resulting in new or expanded police facilities. Police facilities and the need for expanded facilities are based on the staffing levels these facilities must accommodate. Police staffing levels are generally based on the population/police officer ratio, and an increase in population is usually the result of an increase in housing or employment. Although the Project may result in increased employment opportunities, the Project would not result in the need for increase in police protection or police facilities. As explained under the fire services heading above, Project construction will not significantly impact emergency response. Therefore, the Proposed Project would have a less than significant impact in this area.

Fire Services

The Project site is located approximately 1.0 miles from the City of Anderson Fire Department. The Proposed Project may result in future commercial or heavy commercial development, which would increase employment opportunities in the area. However, the Project would not result in a substantial increase in population and thereby not require additional fire facilities to serve this population. The Proposed Project would not require any additional Fire District facilities, equipment, and/or staff and is not anticipated to create an additional burden on exiting fire facilities. The Project would be subject to the fire protection regulations defined in PRC 4290. PRC 4290 provides requirements for road and street

networks, driveways designs, road signage, water requirement standards and fuel modification/removal areas.

Although construction activities would require the use of nearby roadways for worker commutes, delivery of construction materials, and movement of construction equipment, construction would not interfere with emergency response. Therefore, the Project would have a less than significant impact in this area.

Schools

The Project would not result in a significant or direct increase in student population. The Proposed Project would not result in an increase in housing or a significant increase in population in the area, and as such would not require additional educational facilities. Therefore, the Proposed Project would have no impact in this area.

Parks

As stated previously, the need for additional parkland is primarily based on an increase in population to an area. Given that the Proposed Project would not increase the City's population in a direct or significant manner, the Project would not burden any parks in the surrounding area beyond capacity by generating additional recreational users. Therefore, the Proposed Project would not require the construction or expansion of park and recreational facilities and would also not result in an increase in demand for parks and recreation facilities in the surrounding area. There would be no impact to parks as a result of construction of the Proposed Project.

Other Public Facilities

The Proposed Project would not result in an increase in housing and would not induce significant population growth in the City. Therefore, the Project would have a less than significant impacts on other public facilities.

4.15.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.16 Recreation

4.16.1 Environmental Setting

Recreational opportunities for both youth and adults are varied and plentiful in the Project Area. As stated previously, Whiskeytown Lake and Shasta Lake, each only about a thirty-minute drive from the Project site, are common recreation areas. In addition, the nearby Sacramento River passes nearby the Project site and provides opportunities for boating and fishing. In addition, the City of Anderson manages Anderson River Park and Volante Park. Anderson River Park is a 440-acre park with recreational facilities and walking, biking, and horseback riding trails. Volante Park includes a wetland hiking trail, baseball/ softball fields, and a skate area (Anderson 2020b). Hiking and backpacking opportunities are also plentiful in the general region.

4.16.2 Recreation (XVI) Materials Checklist

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

The need for additional parkland is primarily based on an increase in population to an area. Given that the Proposed Project would not result in a significant or direct increase in population, the Project would not burden any parks in the surrounding area beyond capacity by generating additional recreational users. Therefore, the Proposed Project would not increase the use of park and recreational facilities resulting in substantial physical deterioration of the facility. There would be no impact to recreational facilities as a result of construction of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

The Proposed Project does not include or allow for the creation of recreational facilities. As such, the Proposed Project will have no impact impact due to construction and expansion of recreational facilities.

4.16.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.17 Transportation

4.17.1 Environmental Setting

A Traffic Impact Review was prepared for the Proposed Project by GHD which is included as Appendix F of this Initial Study. As stated previously, the Project does not propose any development. The Traffic Impact Review utilized a 70,000 square foot heavy commercial development as a proxy for potential future development which may result. The Traffic Impact Review anticipates that future development would generate 780 weekday daily trips, with 86 trips during the weekday AM peak hour and 106 trips during the weekday PM peak hour (GHD 2020). Relevant plans and transportation information to the Project are outlined below.

4.17.2 Regulatory Setting

City of Anderson 2007 General Plan

Regional access to the Project site is provided by I-5, which spans north to the Canada boarder and south to Los Angeles, California. In addition, SR 273 connects Anderson and Redding, and runs parallel to the Project site. The Circulation Element of the General Plan (Anderson 2007a) encourages use of parallel routes when travelling to other communities, such as SR 273. In addition, the Circulation Element encourages use of alternative transportation when possible; including walking, biking, or riding the bus. The City of Anderson General Plan contains the following transportation goals and policies related to construction and operation of commercial development, which may result from the Proposed Project:

Street System Policies

SP-8: Strive to maintain Level of Service (LOS) D as the minimum acceptable service standard for intersections during peak periods.

SP-9: Provide easy access for trucks and employees from employment centers to major through routes. Provide signage to direct trucks to appropriate truck routes. Direct non-local traffic onto collector streets and arterials.

New Street Facilities Policies

SP-16: Review all new development proposals with public safety personnel to ensure adequate emergency access during construction and operation of the development.

Street Design Implementation

SI-3: Coordinate with local fire protection and law enforcement agencies on emergency response routes and plans.

New Street Facilities Implementation

SI-14: Ensure that developers fund traffic impact studies that identify on-site and off-site effects and mitigations, and that they contribute appropriate funding to ensure that on-site and offsite improvements are constructed.

SI-15: If it cannot be demonstrated prior to project approval that levels of service will be met, the City may consider the development based on payment of traffic impact fees targeted for the specific impacts.

SI-16: In the event that a signalized intersection exceeds the applicable level of service standard, the City may approve projects if the City can establish appropriate conditions of approval and/or mitigation measures to address the service standard.

Bicycle and Pedestrian Circulation Implementation Programs

BI-4: During the site plan review process, require new development to incorporate design features that support bicycling and walking, particularly in those areas that could provide access to and between major destinations. This could include bicycle racks, lockers, showers and other support facilities; continuous sidewalks; an internal pedestrian circulation plan; walkways for pedestrians and bicyclist between cul-de-sacs; and at least one major entrance adjacent to a sidewalk, wherever possible.

2018 Regional Transportation Plan and Sustainable Communities Strategy

The 2018 Regional Transportation Plan and Sustainable Communities Strategy (RTP) for the Shasta Region utilizes several methods to evaluate traffic flow and congestion. LOS is one method used to evaluate system utilization. LOS A, B, and C are generally considered acceptable, whereas LOS D, E, and F indicate significant delays due to traffic. Table 4.17-1 below summarizes characteristics of each LOS class on multiple name highways in the region, namely I-5. Volume to capacity ratio (V/C) is another method for evaluating system utilization. A V/C ratio of 0.75 or greater is considered congested.

The impact of system performance on mobility is measured by vehicle hours of delay (VHD) and AM/PM peak travel period. VHD is the extra time drivers spend on the road due to traffic congestion as compared to the time it would take to reach the given destination in the absence of congestion. AM/PM peak travel period falls during "rush hour". The RTP aims to improve average vehicle miles per hour by 4.5 percent for the PM Peak period, 3 percent for the AM Peak Period and 3.6 percent for the Daily average, by 2035 (SRTA 2018a).

Table 4.17-1. Multi-Lane Highway LOS Descriptions

Classification	Level of Service Threshold		
	LOS	Operating Speed	Technical Description
Multi-Lane Highways	A	60	No delays: highest level of service. Traffic flows freely with little or no restrictions in maneuverability.
	B	60	No delays: traffic flows freely, but drivers have slightly less freedom to maneuver.
	C	60	Minimal Delays: density becomes noticeable with ability to maneuver limited by other vehicles
	D	57	Minimal delays: speed and ability to maneuver is severely restricted by increasing density of vehicles
	E	55	Minimal delays: unstable traffic flow. Speeds vary greatly and are unpredictable.
	F	<55	Significant delays: traffic flow is unstable, with brief periods of movement followed by forced stops.

Source: SRTA 2018b

The RTP also has set goals and objectives related to transportation. Goals relevant to the Project and potential Project-induced development are outlined below:

Goal One: *Optimize the use of existing interregional and regionally significant roadways to prolong functionality and maximize return-on-investment.*

Goal Two: *Strategically increase capacity on interregional and regionally significant roadways to keep people and freight moving effectively and efficiently.*

Goal Three: *Provide an integrated, context-appropriate range of practical transportation choices.*

Goal Four: *Create people-centered communities that support public safety, health, and well-being.*

Transit Service

Public transportation in the City of Anderson and Shasta County is provided by several entities. According to the General Plan Circulation Element, the City is served by the regional transit system operated by the Redding Area Bus Authority (RABA).

Transit service is provided on a designated commuter route that extends from a transfer site in the City to a transit center in the nearby city of Redding. Currently, a loop service is also provided on the Anderson end of the route providing limited service within the town. Alternative transportation systems need to connect. The City acknowledges the network is in need of improvements, including improvements to increase connectivity.

The Circulation Element states that Redding Area Bus Authority also provides "Demand Response" service within ¾ mile of the fixed service route; meaning eligible riders may call for service. The Far Northern Regional Center provides transportation for persons with developmental disabilities, the Redding Rancheria Indian Tribe provides transportation to descendants of the indigenous tribes of Shasta County, and the Shasta County Opportunity Center serves individuals with disabilities.

Pedestrian and Bicycle Facilities

The City of Anderson aims to improve their pedestrian and bicycle facilities. According to the Circulation Element, approximately 90 percent of worker commute trips are made by car and less than 1.5 percent are made using alternative means of transportation, such as biking of walking. However, Circulation Element states that Anderson has the potential to be a "healthy walkable, bikeable City due to the grid street pattern and generous rights-of-way in the Old Town Core" (Anderson 2007a).

In 2007, the City published the Bicycle Transportation Plan (2007b), with the goal of improving the bicycle transportation system and improving air quality in the region. The plan includes goals, objectives, and policies aimed at improving the bicycle commuter network. The Plan states that in 2007, the City had 0.3 miles of Class 1 Bikeways, 3.5 miles of Class 2 Bikeways, one mile of Class 3 Bikeways, and an additional 2.5 miles of class 1 Bikeways in Anderson River Park. The Plan includes numerous goals, objectives, and policies aimed at increasing miles of bike paths and number of bike racks in the City, while encouraging safety and usability. This Plan proposes to construct 0.9 miles of Class 1 bikeway, eight miles of Class 2 bikeway and one mile of Class 3 bikeway in the City.

In addition, the City is included in the 2018 GoShasta Regional Active Transportation Plan (SRTA 2018b). The City is subject to several action list items aimed at improving active transportation options in Shasta County.

4.17.3 Transportation (XVII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	☐	☐	☒	☐

The project is projected to generate approximately 780 weekday daily vehicle trips with approximately 86 AM peak hour trip and 106 PM peak hour trips. General Plan Policy SP-8 indicates that the City strives to maintain Level of Service (LOS) D as the minimum acceptable service standard for intersections during peak periods. In addition, the 2018 RTP states that LOS A, B, and C are generally considered acceptable, whereas LOS D, E, and F indicate significant delays due to traffic. In the *Existing Plus Project* conditions the critical intersection of East Street at North Street is projected to continue to operate at LOS D or better. However, as the City continues to grow, and further development occurs along an extension of East Street, a traffic signal or modern roundabout will be needed for the East Street/North Street intersection. Installation of the future traffic signal or modern roundabout will be paid for through the City's traffic impact fee program. Future Project-induced development would be required to participate in the traffic impact fee program. As such, upon buildout of each parcel included in the Project site, fair share payment must be made to the City's Traffic Impact Fee (TIF) program.

The City's General Plan Right of Way Requirements table indicates the maximum daily traffic on East Street should be limited to 12,000 vehicles per day. A review of previous traffic studies and the current development context indicates that East Street can be expected to have less than 12,000 vehicles per day upon buildout of the corridor under the Cumulative Plus Project Conditions.

Further, the City's General Plan identifies East Street to be extended northerly to Alexander Avenue as a collector street. The Project is consistent with the General Plan Circulation Plan. East Street, within the project, would be required to have City standard pedestrian sidewalks or separated or separated or separated paths. The Project description includes the construction of sidewalks or separated paths along East Street to connect to the Dutton Subdivision.

In addition, East Street, within the Project site, will initially be configured for bicycle traffic to either share the vehicular lanes or use a separated path. The 46-feet curb-to-curb width for the new section of East Street will allow for bike lanes to be striped if on-street parking is restricted.

The City will consult with the Redding Area Bus Authority during the review/approval of the construction improvement plans. If RABA requests provisions for a bus stop then the feature will be added to the street design.

Based on the discussion above, the Project would have a less than significant impact.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐

Senate Bill 743 was signed into law in 2013, with the intent to better align CEQA practices with statewide sustainability goals related to efficient land use, greater multimodal choices, and greenhouse gas reductions. The provisions of SB 743 become effective Statewide on July 1, 2020. Under SB 743, impacts will be determined by changes to Vehicle Miles Traveled (VMT). VMT measures the number and length of vehicle trips made on a daily basis. VMT is a useful indicator of overall land use and transportation efficiency, where the most efficient system is one that minimizes VMT by encouraging shorter vehicle trip lengths, more walking and biking, or increased carpooling and transit.

In December 2018, OPR released its final *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Generally, OPR recommends that a reduction of 15 percent or more in existing VMT should be the target. Below is a summary of OPR's recommended VMT impact thresholds and methodologies for land use projects:

Residential or Work/Office Projects – A proposed project exceeding a level of 85 percent of the existing regional VMT baseline per employee may indicate a significant transportation impact.

Retail Projects – A net increase in total VMT may indicate a significant transportation impact.

Other Projects – Lead agencies, using more location-specific information, may develop their own more specific thresholds, which may include other land use types. In developing thresholds for other project types, or thresholds different from those recommended here, lead agencies should consider the purposes described in section 21099 of the Public Resources Code and regulations in the CEQA Guidelines on the development of thresholds of significance (e.g., CEQA Guidelines, § 15064.7).

OPR's Technical Advisory lists the following screening thresholds for land use projects. These types of development projects are presumed to have a less than significant impact on vehicle miles traveled and therefore, a less than significant adverse impact on transportation. OPR's Technical Advisory suggests that lead agencies may screen out VMT impacts using project size, maps, transit availability, and provision of affordable housing.

- Projects that are consistent with the Sustainable Communities Strategy (SCS) or General Plan and generate or attract fewer than 110 daily trips.
- Mat-based screening for residential and office projects located in low VMT areas, and incorporate similar features (density, mix of uses, transit accessibility).

- Certain projects within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor. However, this will not apply if information indicates that the project will still generate high levels of VMT.
- Affordable Housing Development in infill locations.
- Locally-serving retail projects, typically less than 50,000 square feet.
- Projects that can be expected to generate no more than 85 percent of the baseline VMT as compared to the average VMT in the Region (*Shasta County in the case of projects in the City of Anderson*).

Since Project-induced development would be classified as "infill" development and the City of Anderson offers a variety of housing, recreation, shopping, education and support activities, the VMT from the Project-induced development is projected to be less than 85 percent of the regional baseline. Thus, this impact would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒

The geometric design for East Street would be required to meet the City Engineering standards. The rezoning and redesignating of two existing parcels at the Project site would create consistency in land use across the Project site. The additional traffic resulting from Project-induced commercial or heavy commercial development is not expected to significantly increase the rate of car crashes, or traffic safety hazards in general, due to a geometric design feature or incompatible use. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in inadequate emergency access?	☐	☐	☒	☐

Access to the Project site is provided via East Street, that would provide adequate emergency access upon buildout. Development of the Project site would include the construction of an extension to East Street that is expected to eventually provide connectivity between the City's central business district and industrial areas along Alexander Avenue. The eventual extension of East Street would provide emergency access redundancy. A less than significant impact would occur.

4.17.4 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.18 Tribal Cultural Resources

4.18.1 Environmental Setting

A Cultural Resources Inventory Survey was prepared by Genesis Society (2019) for the Proposed Project to determine if cultural resources or tribal cultural resources were present in or adjacent to the Project Area and assess the sensitivity of the Project Area for undiscovered or buried cultural resources. The following information was excerpted from the Genesis Society report.

Ethnographically, the Project Area is located on lands claimed traditionally by the Bald Hills subgroup of Wintu Indians, adjacent to the Keswick Wintu tribelet to the north, and a short distance west of the border shared with the Central Yana, and a short distance north of the border shared with the Nomlaki. The basic social unit for the Wintu was family, while the village may be described as a social, political, and economic unit. Villages were located on flats adjoining streams and were inhabited primarily in winter. It was necessary for tribe members to go to the hills and higher elevations to establish temporary camps during the food gathering seasons (spring, summer, and fall). Villages contained a scattering of bark houses. The number of houses in a given villages ranged from around five to several dozen. Villages of larger size and located along the Sacramento River sometimes also contained an earth lodge.

Economic life of the Wintu revolved around hunting, fishing, and collecting plant foods. Deer, acorns, and salmon were the primary diet staples. Collecting and processing of food was done using a variety of wood, bone, and stone artifacts. Much of their sophisticated knowledge of local plants, animals, and raw materials has perished. This is due primarily to the perishability of their material culture but is in part due to impacts to archeological sites. The range of potentially present Native American site types for the area include:

- Surface scatters of lithic artifacts and debitage, often but not always associated with dark brown to black midden deposits, resulting from village encampments. Typically, such sites are located adjacent or close to permanent surface water sources.
- Surface scatters of lithic artifacts and debitage without associated middens, resulting from short-term occupation and/ or specialized economic activities.
- Bedrock milling stations, including both mortar holes and metate slicks, located in areas where bedrock is exposed, particularly along stream channels.
- Petroglyphs, especially "pitted" or "cupped bedrock outcrops.
- Isolated finds of aboriginal artifacts.

This list includes the types of sites most likely to be present, based on prior surveys performed in the general Project vicinity (Genesis Society 2019).

4.18.2 Tribal Consultation

As a part of the Cultural Survey, Genesis Society contacted the California Native American Heritage Commission (NAHC) on December 16, 2020 to request a search of the Sacred Lands File for the APE. This search was requested to determine whether there are sensitive or sacred Native American resources in the vicinity of the Project Area that could be affected by the Proposed Project. A search of the Sacred Lands File by the NAHC failed to indicate the presence of Native American cultural resources in the Project Area.

Existing Northeast Information Center (NEIC) records document that all of the Project Site has been subjected to prior archeological investigation. Per the NEIC records, no prehistoric or historic era sites have neem documented in the Project Site (Genesis Society 2019).

AB 52 requires that prior to the release of a CEQA document for a project, an agency begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the Proposed Project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. The City of Anderson notified the Greenville Rancheria of Maidu Indians of the Proposed Project on April 2, 2020. However, the tribe did not provide any comments on the Project.

4.18.3 Tribal Cultural Resources (XVIII) Environmental Checklist and Discussion

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 tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the	☐	☒	☐	☐

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
lead agency shall consider the significance of the resource to a California Native American tribe.				

The Project site was surveyed by professional archaeologist, Principal Investigator Sean Michael Jensen, M.A. on December 24, 2019. No known cultural resources or significant archaeological resources have been identified within the Project Area. The site has not been identified as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe. However, unanticipated, and accidental discovery of California Native American tribal cultural resources are possible during project implementation, especially during excavation, and have the potential to impact unique cultural resources. As such, mitigation measure **CUL-1** has been included to reduce the potential for impacts to tribal cultural resources to a less than significant level.

4.18.4 Mitigation Measures

Implement mitigation measure **CUL-1** (see Section 4.5.4).

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

The City of Anderson Public Works Department is responsible for water, wastewater, and storm drainage for the City. The City contracts with Waste Management to provide solid waste collection services in the City.

Water Service

The Project site is served by the City of Anderson's municipal water supply. The City's water supply is sourced from ten groundwater wells with an effective capacity of 10,700 acre-feet per year (AFY). The City of Anderson was mandated to publish the 2015 Urban Water Management Plan, as the City supplied approximately 2,150 AF of water to approximately 11,150 people through 3,340 commercial and residential accounts in the year 2015. For the 2010 to 2015 time period, single-family residential comprised 67 percent of demand and commercial/ institutional comprised 15 percent of demand. The latest target water use date released was for 2020. A target of 80 percent of the average 1999-2008 water use, or 184 GPCPD, was set for 2020. Water demand projections for the years 2020, 2025, 2030, and 2035 are anticipated to fall far below the effective well capacity (Anderson 2015).

The wells are all located within the City of Anderson, which is contained in the Redding Area - Anderson Subbasin, (Number 5-006.03) of the Sacramento Valley Hydrologic Region (DWR 2015).

Per the Urban Water Management Plan, the City's Projected water use for the year 2025 is 2,160 AF, or approximately 703 million gallons for the year. The City of Anderson is a participating member of the

Enterprise Anderson Groundwater Sustainability Agency (EAGSA) for the Anderson Subbasin. The EAGSA is tasked with writing the groundwater sustainability plan (GSP) for the Anderson Subbasin. The GSA is developing water management tools which participating members, including the City of Anderson, will implement to sustainably manage groundwater upon completion of GSP. The GSA aims to have the draft GSP completed by December 2020. Future development of the Project site would be managed sustainably in accordance with California state law promulgated by DWR and per the guidance promulgated by the Anderson Subbasin GSP (Redding 2020).

The DWR Sustainable Groundwater Management Act (SGMA) Data Viewer provides groundwater levels through the state. Among other things, this interactive online tool can illustrate the change in groundwater depth of a certain time period for a particular location, including within the City of Anderson. According to the data viewer, the water surface elevation (WSE) of a well located in the Project Area (Local Well MW-01S) increased from 392.61 to 396.60 WSE between 9/24/2015 and 9/30/2020 (DWR 2020b). However, the depth to groundwater varies by location and rainfall.

Wastewater

Wastewater within the City is collected and processed by the City's Wastewater Treatment Plant, also known as the Water Pollution Control Plant. The City operates a modern Class IV tertiary wastewater treatment plant, rated for two million gallons per day (mgd). Wastewater is conveyed to the plant through a combination of four pump stations and the use of gravity (Anderson n.d.). According to the City of Anderson Sewer System Management Plan (2009), the City's sewer system had 4,537 housing equivalents (HEs) in 2006, which was anticipated to increase to 11,153 HEs by 2026. General Commercial uses design flow calculations are based on a density of 4.0 HE per acre. One HE is identified as producing 300 gallons per day of wastewater.

Storm Drainage

The City of Anderson stormwater drainage system consists primarily of on-street storm drain inlets, underground stormwater pipes, stormwater detention ponds, and drainage channels. These facilities convey water to detention ponds or wetlands. The detention ponds, wetlands, and drainage channels allow some of the stormwater to naturally infiltrate into the soil. Some of the stormwater flows to the Sacramento River and other waterways throughout the City. Stormwater is not treated prior to release into waterways.

Solid Waste

Waste Management provides solid waste collection services in the City. The waste is transported to the Anderson Landfill at 18703 Cambridge Road, Anderson, CA 96007, where it is processed. The solid waste unit of the facility has a maximum permitted throughput of 1,850 tons per day and a remaining capacity of 10,409,132 cubic yards in 2015. The solid waste unit of the landfill still had a remaining capacity of approximately 63.6 percent in 2015 and has an anticipated cease operation date of January 1, 2093 (CalRecycle 2015).

Electricity/Natural Gas Services

Refer to *Section 4.6. Energy*, above.

4.19.2 Utilities and Service Systems (XIX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐

Water

Future commercial or heavy commercial development at the Project site would increase the demand for water in the City due to human consumption and irrigation required for landscaping. The annual water demand for landscape irrigation would be required to comply with the Model Water Efficient Landscape Ordinance (MWELO). The City is anticipated to supply 703 million gallons of water for the year 2025, or approximately 1.92 million gallons per day. Compliance with MWELO would minimize use of water by the Project and ensure the most efficient use of water for landscape irrigation.

In addition, water would be used for operations of the future commercial or heavy commercial use. Water usage cannot be accurately quantified without knowing the details of future development. Regardless of the future development induced by the Project, the Project is located in a developed area, and as such City water connections are readily available. The existing City wells have capacity for 10,700 AFY, far more than the projected demand through 2035. Project-induced development would not require the construction of new or expanded water facilities. Therefore, the Proposed Project would have a less than significant impact to the City's water treatment or conveyance facilities.

Wastewater

The City's Wastewater Treatment Plant is permitted to treat up to 2.0 mgd and wet weather flow to 6.0 mgd of wastewater (Anderson n.d.). Future commercial or heavy commercial development at the Project site would produce wastewater. Based on the HE per acre densities for General Commercial provided in the City's Sewer System Management Plan, the Project site would produce approximately 38 HEs or equivalent to 11,400 gpd of wastewater[2]. While future development of the 15 parcels would increase the amount of wastewater in the City, this increase would not exceed the City's treatment plan capacity or

[2] 9.4 acres X 4.0 HE/ac = 38 HE. 38 HE X 300 gpd of wastewater = 11,400 gpd of wastewater.

result in the need for relocation or construction of new wastewater treatment facilities. Thus, this impact would be considered less than significant.

Storm Drainage

Future development induced by the Proposed Project would result in an increase in impervious surface area for the which the Project would be required to include the conveyance of water to curbs, gutters, and drainages to meet stormwater and runoff control requirements promulgated by the City, the NPDES Stormwater Program of the USEPA, and the Central Valley RWQCB Small MS4 permit . In addition, landscaped area would allow for the infiltration of water to reduce runoff induced by the Project. As such, the Proposed Project would not result in the need for new or expanded stormwater facilities beyond typical drainages as required by law. Thus, this impact would be considered less than significant.

Electric Power

Electricity is provided to the Project area by PG&E. The electricity provider's ability to provide its services concurrently for each project is evaluated during the development review process. The utility company is bound by contract to update its systems to meet any additional demand. During operation of Project-induced commercial or heavy commercial development, the ability of the electricity provider to power the site would be evaluated. As explained under *Section 4.6 Energy*, a significant energy use impact would not result. As such, no new electric facilities will be required to provide electricity to the Project. Therefore, the Project would have a less than significant impact in this area.

Natural Gas

Natural gas is provided by PG&E, which provides natural gas and electricity to most of the northern 2/3 of California, from Bakersfield and Barstow to near the Oregon, Nevada and Arizona state lines. It provides 5.2 million people with electricity and/or natural gas across 70,000 square miles.

As explained under *Section 4.6 Energy*, no new PG&E natural gas facilities would be required to be constructed to serve the site. Construction of regular service connections may be required. As such, the Project would have a less than significant impact to natural gas facilities.

Telecommunications

Existing phone lines are located adjacent to the Project site. Telecommunication will be through existing company and personal cell phones. No new telecommunication facilities will be required to serve the Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐

Refer to Item a) above. The Project will have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

Refer to Item a) above. The Project will have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐

The construction phase of future Project-induced development would result in the generation of some solid waste. Construction of potential commercial or heavy commercial development is anticipated to occur over the course of 12 months. In addition, operations of potential future development would result in solid waste generation. According to CalRecycle (2019), the estimated solid waste generation rates for employees is 15.4 pounds per employee per day.

The solid waste produced would be processed at the Anderson Landfill, which 10,409,132 cubic yards in 2015 (approximately 63.6 percent). The maximum throughput for the landfill is 1,850 tons per day (CalRecycle 2015). As such, regardless of the construction and future use specifications, the waste produced by Project-induced development would not be in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Development would be required to comply with all relevant laws and regulations and would not be more wasteful than other projects of such nature. Thus, the Project would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Comply with federal, state, and local statutes and management and reduction regulations related to solid waste?	☐	☐	☒	☐

The Proposed Project is required to comply with all state and federal statutes regarding solid waste. This impact is considered less than significant.

4.19.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.20 Wildfire

4.20.1 Environmental Setting

The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (e.g., winds, temperatures, humidity levels and fuel moisture contents), and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area-to-mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area-to-mass ratio and require more heat to reach the ignition point.

The Project Area is relatively flat and dominated by residential and commercial development. The area is not designated as a FHSZ (CAL FIRE 2008).

4.20.2 Wildfire (XX) Environmental Checklist and Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

The Project site is not in an area designated by CAL FIRE as a FHSZ. Furthermore, no Very High FHSZs are located nearby. Also, the Project site is not located in a state responsibility area (CAL FIRE 2008). The Project would have no impact in this area.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒

The Project site is not in an area designated by CAL FIRE as a FHSZ. Furthermore, no Very High FHSZs are located nearby. Also, the Project site is not located in a state responsibility area (CAL FIRE 2008). The Project would have no impact in this area.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒

The Project site is not in an area designated by CAL FIRE as a FHSZ. Furthermore, no Very High FHSZs are located nearby. Also, the Project site is not located in a state responsibility area (CAL FIRE 2008). The Project would have no impact in this area.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

The Project site is not in an area designated by CAL FIRE as a FHSZ. Furthermore, no Very High FHSZs are located nearby. Also, the Project site is not located in a state responsibility area (CAL FIRE 2008). The Project would have no impact in this area.

4.20.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.21 Mandatory Findings of Significance

4.21.1 Mandatory Findings of Significance (XXI) Environmental Checklist and Discussion

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

Section 4.5 Cultural Resources and *Section 4.18 Tribal Cultural Resources* describe how the Proposed Project would have potential impact cultural resources and tribal cultural resources. However, with implementation of Mitigation Measure **CUL-1**, this potential impact would be reduced to a level that is considered less than significant.

Section 4.4 Biological Resources describes how the Proposed Project has the potential to impact special-status species, protected birds, and Waters of the U.S. However, with the implementation of mitigation measures **BIO-1** through **BIO-7**, these potential impacts to biological resources will be reduced to a less than significant level.

Section 4.3 Air Quality describes how the Proposed Project would result in a potentially significant air quality impact during roadway construction and future development. However, with implementation of mitigation measure **AQ-1**, this impact would be reduced to a less than significant level.

Section 4.7 Geology and Soils describes how future development of the site may result in potential for affects to this new development as a result of expansive soils. Mitigation measure **GEO-1** would reduce this impact to be less than significant. In addition, future development has the potential to impact paleontological or other geologically sensitive resources. Mitigation measure **GEO-2** would reduce this impact to a less than significant level.

Section 4.10 Hydrology and Water Quality describes how development of the Project may result in impacts to water quality during construction of the roadway, site grading and future development. However, with implementation of mitigation measures **HYD-1 and HYD-2**, this impact would be reduced to a less than significant level.

Section 4.13 Noise describes how the Project would result in a potentially significant noise impact during operation of future commercial of heavy commercial development. Mitigation measure **NOI-1** would reduce this impact to a less than significant level.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐

Implementation of the Proposed Project, in conjunction with other approved or pending projects in the region, has the potential to result in cumulatively considerable impacts to the physical environment. However, with implementation of Project-specific mitigation measures proposed in the relevant subsections of this IS/MND (See sections a) and c)), these potential impacts would be reduced to a level that is considered less than significant.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Direct and indirect impacts to human beings would be less than significant with the implementation of mitigation measures listed in this IS/MND. As explained under item a) above, the Project has the potential to have a substantial adverse impact on biological resources, cultural resources, air quality, noise, and geology and soils. However, with implementation of appropriate required mitigation measures, these potential impacts would be reduced to a less than significant level. The Project has no other potentially significant impacts. As such, the Project has a less than significant impact in this area.

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SECTION 7.0 APPENDICES

Appendix A – CalEEMod Air Quality Outputs

Appendix B1 – Biological Resource Assessment

Appendix B2 – Draft Delineation of Jurisdictional Waters of the United States

Appendix C – Energy Consumption Outputs

Appendix D1 – Noise Measurements

Appendix D2 – FHWA Highway Traffic Noise Prediction Model

Appendix D3 – Roadway Construction Noise Model

Appendix D4 – SoundPLAN 3D Noise Model

Appendix E – CalEEMod Greenhouse Gas Emission Outputs

Appendix F – East Street Industrial Park Unit 2 (TM 19-01) Traffic Impact Review