

# **Initial Study/Mitigated Negative Declaration**

## **SOLARI**

### **Tentative Parcel Map T20-006**



#### **Lead Agency:**

Tuolumne County  
Community Development Department  
48 Yaney Avenue  
Sonora, California 95370  
209-533-5633  
[www.tuolumnecounty.ca.gov](http://www.tuolumnecounty.ca.gov)

## **INTRODUCTION AND REGULATORY GUIDANCE**

This Initial Study/Proposed Mitigated Negative Declaration (IS/Proposed MND) has been prepared by Tuolumne County to evaluate potential environmental effects resulting the creation of a subdivision in the community of Columbia, in Tuolumne County, California.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a “public agency shall prepare...a proposed negative declaration or mitigated negative declaration...when: (a) The Initial Study shows that there is no substantial evidence...that the project may have a significant impact on the environment, or (b) The Initial Study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level.” In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant effect by adoption of mitigation or by revisions in the project design.

As described in the environmental checklist (Section 2), the project would not result in any unmitigated significant environmental impacts. Therefore, an IS/Proposed MND is the appropriate document for compliance with the requirements of CEQA. This IS/Proposed MND conforms to these requirements and to the content requirements of State CEQA Guidelines Section 15071.

## **PUBLIC REVIEW REQUIREMENTS**

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project. Tuolumne County is the CEQA lead agency. The purpose of this document is to present to decision-makers and the public, information about the environmental consequences of implementing the project. This disclosure document is being made available to the public for review and comment. This IS/Proposed MND will be available for a 30-day public review period from September 24, 2021 to October 25, 2021.

Supporting documentation referenced in this document is available for review at:  
Tuolumne County Community Development Department  
48 Yaney, Sonora, CA 95370

Comments should be addressed to and must be postmarked by October 25, 2021:  
Natalie Rizzi, Senior Planner  
Tuolumne County Community Development Department  
2 South Green Street, CA 95370  
nrizzi@co.tuolumne.ca.us

After comments are received from the public and reviewing agencies, the Tuolumne Surveyor may (1) certify the MND and approve the project; (2) require additional environmental analysis; or (3) disapprove the project. If the project is approved, the applicant may proceed with the project.

## PROJECT INFORMATION

**DATE:** September 22, 2021

**SURFACE/MINERAL  
RIGHTS OWNERS** William Solari

**APPLICANT:** Robert Ozbirn

**PROJECT  
DESCRIPTION:** Tentative Parcel Map T20-006 to divide a 160.9± acre parcel zoned AE-37:MX:AIR (Exclusive Agricultural, Thirty-Seven Acre Minimum: Mobile Home Exclusion Combining: Airport Combining) under Title 17 of the Tuolumne County Ordinance Code (TCOC) as follows:

Parcel	Proposed Acreage
2A	41.4±
2B	39.2±
2C	40.2±
2D	40.3±

**LOCATION:** The project site is located at 10079, 10085 and 10095 North Airport Road in Columbia, southwest of the intersection of North Airport Road and Chili Gulch Road. The project site is within a portion of Sections 9, 10, 15, and 16, Township 2 North, Range 14 East, Mount Diablo Baseline and Meridian. The project site is within Supervisorial District 5. Assessor's Parcel Number 032-120-040.

**SITE  
DESCRIPTION:** The project site is located at 10079, 10085, and 10095 North Airport Way in the community of Columbia. The site is bounded by North Airport Road along the northeastern boundary and Chili Gulch Road along the eastern and southeastern boundary. The site is 160.9± acres in size and is currently zoned AE-37:MX:AIR. The General Plan land use designation of the site is Agricultural. The project site is located within the area that is subject to the Columbia Community Plan.

A portion of the Columbia Airport is located adjacent to the eastern property boundary on the opposite side of Chili Gulch Road. The project site is located within Airport Compatibility Zones A, B1, B2, and C, and site contains areas which are designated as Height Restricted Zone and Critical Height Zone. (Source: Tuolumne County Airport Land Use Compatibility Plan.)

The project site is developed with two single-family dwellings, private sewage disposal systems, private wells, and accessory structures including garages, sheds, and corrals. The project site also contains historic structures associated with the Solari Ranch.

There is a livestock pond located on the proposed parcels 2A and 2B, and an existing agricultural use of cattle grazing on the site. The project site is located within Agricultural Preserve 169 but is no longer within a Williamson Land Conservation Contract. A notice of non-renewal was submitted in 2006 and the parcel was fully taken out of the Williamson Act Contract, with all restrictions removed, in 2016.

Drainages transverse the property. One of the drainages and the pond are identified on the USGS Topographic maps. The drainages on site are ephemeral and intermittent in nature and only contain surface flows during portions of the year. Vegetation on the site includes blue oak, foothill gray pine, live oak, blackberry, willow, manzanita, and annual grasses.

Elevations on the site range from approximately 1,780± feet above mean sea level in the eastern portion of the site to approximately 2,220± feet along the southern boundary. The slopes as identified on the USGS Quadrangle maps range from approximately 0% in the east and center of the project site to approximately 60% in the western portion.

**DETAILED  
PROJECT  
DESCRIPTION:**

On January 28, 2020 an application was received for the following:

Tentative Parcel Map T20-006 to divide a 160.9± acre parcel zoned AE-37:MX:AIR (Exclusive Agricultural, Thirty-Seven Acre Minimum: Mobile Home Exclusion Combining: Airport Combining) under Title 17 of the Tuolumne County Ordinance Code (TCOC) as follows:

Parcel	Proposed Acreage
2A	41.4±
2B	39.2±
2C	40.2±
2D	40.3±

The existing General Plan designation of Agricultural (AG) and zoning of AE-37 would allow for the parcel split as each of the proposed parcels would meet the minimum size requirement. Both the AG designation and AE-37 zoning district require parcels to be a minimum of 37 gross acres in size.

Access to each of the parcels would be served via a 50-foot-wide common driveway off North Airport Road, which would follow the existing driveway and utilize the existing encroachment. The driveway would be recorded as an easement to allow use by all four parcels and will meet the road standards of a common driveway. Water and sewer will be provided via private wells and private sewage disposal systems.

**Other Agency Approvals:**

In addition to County review and approval, the project would require permit issuance approvals from other agencies. These agencies would serve as responsible and trustee agencies pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This document provides the necessary environmental information for discretionary actions by these agencies.

- California Department of Fish and Wildlife (CDFW) –Reviews/approves project for compliance with applicable rules and regulation, specifically impacts to sensitive plant, animal, and wetland/riparian habitat. Collects CDFW filing fee for review of project environmental document.
- US Fish and Wildlife Service – Reviews/approves applicable rules and regulation, specifically impacts to sensitive plant, animal, and wetland/riparian habitat. The authority to contact regarding buffer protection zones for elderberry shrubs.
- US Army Corps of Engineers for wetland determination
- Native American Heritage Commission State Water Resources Control Board
- Tuolumne County—for encroachment permits, grading permits, and building permits.

**Consultation Pursuant to Public Resources Code Section 21080.3.1:**

In accordance with Senate Bill 52, formal consultation letters were sent to the contacts for the Chicken Ranch Rancheria of Me-Wuk Indians and Tuolumne Band of Me-Wuk Indians Tribes. AB 52 consultation letters we sent via certified mail on September 23, 2020. To date, neither Tribe has requested consultation or provided comments on the proposed project.

LEGEND

- - CALCULATED POSITION ONLY NOTHING FOUND OR SET
- (M) - MEASURED
- (R1) - RECORD PER 10 SUB 75
- - - - - EXISTING OVERHEAD UTILITY LINES
- - - - - EXISTING FENCE
- - - - - EXISTING WELL
- - - - - EXISTING UTILITY POLE

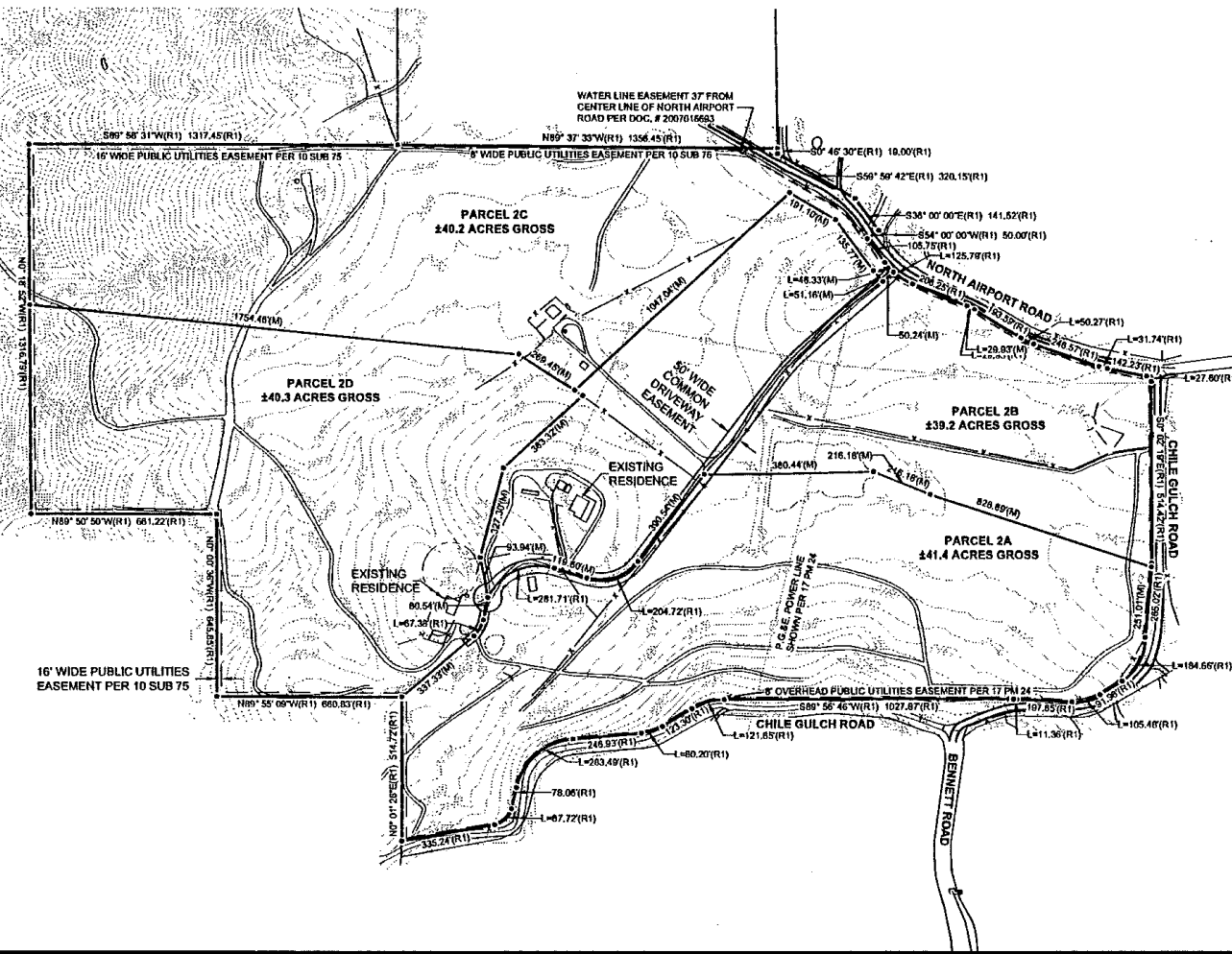
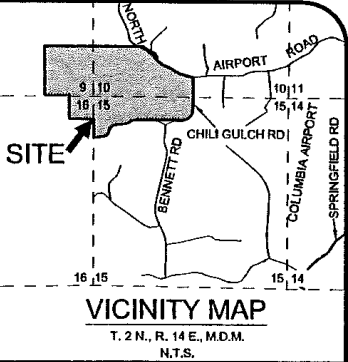
NOTES

- 1) - ALL BEARINGS AND DISTANCES SHOWN ARE RECORD UNLESS OTHERWISE NOTED.
- 2) - RESERVATIONS, EASEMENTS AND CONDITIONS AS CONTAINED IN THE UNITED STATES LAND PATENT 18 D. 528.
- 3) - RESERVATIONS, EASEMENTS AND CONDITIONS AS CONTAINED IN THE UNITED STATES LAND PATENT 99 D. 243.
- 4) - RESERVATIONS, EASEMENTS AND CONDITIONS AS CONTAINED IN THE UNITED STATES LAND PATENT 99 D. 244.
- 5) - AN AVIATION EASEMENT EXISTS TO THE COUNTY OF TUOLUMNE PER 712 O.R. 171.
- 6) - AN AIRPORT AVIATION AND AIR SPACE UTILIZATION EASEMENT EXISTS TO THE COUNTY OF TUOLUMNE PER 819 O.R. 152.
- 7) - AN AMENDED AIRPORT AVIATION AND AIR SPACE UTILIZATION TO THE COUNTY OF TUOLUMNE PER 834 O.R. 509.
- 8) - RIGHTS OF THE PUBLIC AND THE COUNTY OF TUOLUMNE OVER THAT PORTION OF THE PREMISES LYING WITHIN THE LINES OF NORTH AIRPORT ROAD AS THE SAME NOW EXISTS.
- 9) - NOTICE OF AIRPORT PROXIMITY EXECUTED BY THE COUNTY OF TUOLUMNE PER DOC. # 2015008849.
- 10) - THE EXISTING RESIDENCES ON PARCELS 2B & 2D ARE MORE THAN 100 FEET FROM THE NEW PROPOSED BOUNDARIES.

OWNER & SITE INFORMATION

OWNERS: WILLIAM S. SOLARI, III  
550 RIVIERA CIRCLE  
LARKSPUR, CA 94939  
(415) 598-0501

APN: 032-120-040  
SITE ADDRESS: 10085 N. AIRPORT RD, COLUMBIA, CA 95310  
EXISTING LOT SIZE: ±160.94 ACRES  
VESTING DEED: DOC. # 2012018481  
MAP OF RECORD: 10 SUB 75  
SEWER: INDIVIDUAL SEPTIC SYSTEM  
WATER: PRIVATE WELL  
EXISTING ZONING: AE-37-MX-AIR  
GENERAL PLAN: AG



**NORTH**

( IN FEET )  
1 inch = 300 ft

JOB NO:	DRAWN BY:	DRAWING NAME:	DATE:
16-05-20	TAH	TPM 2019	01/21/2020

**Land & Structure**  
SURVEYING • ENGINEERING • DESIGN

105 SOUTH STEWART STREET, SONORA, CA, 95370  
T: 209.532.5173 F: 209.532.5220

**VESTING TENTATIVE  
PARCEL MAP**

BEING A DIVISION OF PARCEL 2 AS SHOWN IN BOOK 10 OF SUBDIVISIONS AT PAGE 75, ON FILE IN THE OFFICE OF THE TUOLUMNE COUNTY RECORDER, LYING WITHIN PORTIONS OF THE SOUTHWEST 1/4 OF SECTION 9, THE SOUTHWEST 1/4 OF SECTION 10, THE NORTHWEST 1/4 OF SECTION 15 AND THE NORTHEAST 1/4 OF SECTION 15, TOWNSHIP 2 NORTH, RANGE 14 EAST, MOUNT DIABLO MERIDIAN, IN THE UNINCORPORATED AREA OF TUOLUMNE COUNTY, STATE OF CALIFORNIA.

SHEET 1 OF 1

## ENVIRONMENTAL EVALUATION

**TERMINOLOGY DEFINITIONS:** The following terminology from Appendix G of the *State CEQA Guidelines* is used in this environmental analysis to describe the level of significance of potential impacts to each resource area:

- **Potentially Significant Impact.** This term applies to adverse environmental consequences that have the potential to be significant according to the threshold criteria identified for the resource, even after mitigation strategies are applied and/or an adverse effect that could be significant and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared consistent with CEQA.
- **Less-than-Significant Impact with Mitigation.** This item applies to adverse environmental consequences that have the potential to be significant but can be reduced to less-than-significant levels through the application of identified mitigation strategies that have not already been incorporated into the proposed project.
- **Less-than-Significant Impact.** This term applies to potentially adverse environmental consequences that do not meet the significance threshold criteria for that resource. Therefore, no mitigation measures are required.
- **No Impact.** This term means no adverse environmental consequences have been identified for the resource or the consequences are negligible or undetectable. Therefore, no mitigation measures are required.

### 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.

<input type="checkbox"/>	Aesthetics
<input type="checkbox"/>	Biological Resources
<input type="checkbox"/>	Geology/Soils
<input type="checkbox"/>	Hydrology/Water Quality
<input type="checkbox"/>	Noise
<input type="checkbox"/>	Recreation
<input type="checkbox"/>	Utilities/Service Systems
<input checked="" type="checkbox"/>	None with Mitigation Implemented

<input type="checkbox"/>	Agriculture and Forestry Resources
<input type="checkbox"/>	Cultural Resources
<input type="checkbox"/>	Greenhouse Gas Emissions
<input type="checkbox"/>	Land Use/Planning
<input type="checkbox"/>	Population/Housing
<input type="checkbox"/>	Transportation
<input type="checkbox"/>	Wildfire

<input type="checkbox"/>	Air Quality
<input type="checkbox"/>	Energy
<input type="checkbox"/>	Hazards and Hazardous Materials
<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Tribal Cultural Resources
<input type="checkbox"/>	Mandatory Findings of Significance

**DETERMINATION** (To be completed by the Lead Agency) on the basis on the initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed 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, and a MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed 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 the 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 proposed 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 proposed project, nothing further is required.

  
Quincy Yaley, AICP  
Environmental Coordinator

9/22/21  
Date





## OFFICE OF ENVIRONMENTAL COORDINATOR

Quincy Yaley, AICP  
Environmental Coordinator

48 Yaney Avenue, Sonora  
Mailing: 2 S. Green Street  
Sonora, CA 95370  
209 533-5633  
209 533-5616 (fax)  
209 533-5909 (fax – EHD)  
[www.tuolumnecounty.ca.gov](http://www.tuolumnecounty.ca.gov)

### MITIGATED NEGATIVE DECLARATION

**PROJECT  
PROPONENT:**

William Solari/Robert Ozbirn

**PROJECT  
NUMBER:**

Tentative Parcel Map T20-006

**PROJECT  
DESCRIPTION:**

Tentative Parcel Map T20-006 to divide a 160.9± acre parcel zoned AE-37:MX:AIR (Exclusive Agricultural, Thirty-Seven Acre Minimum: Mobile Home Exclusion Combining: Airport Combining) under Title 17 of the Tuolumne County Ordinance Code (TCOC) as follows:

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**LOCATION:**

The project site is located at 10079, 10085 and 10095 North Airport Road in Columbia, southwest of the intersection of North Airport Road and Chili Gulch Road. The project site is within a portion of Sections 9, 10, 15, and 16, Township 2 North, Range 14 East, Mount Diablo Baseline and Meridian. The project site is within Supervisorial District 5. Assessor's Parcel Number 032-120-040.

**ASSESSOR'S  
PARCEL NO:**

032-120-040

**COUNTY:**

County of Tuolumne

**LEAD AGENCY:**

Tuolumne County Community Development Department

### DETERMINATION

In accordance with the California Environmental Quality Act (CEQA), the Environmental Coordinator for the County has conducted an Initial Study to determine whether the proposed project may have a significant effect on the environment. On the basis of that study and the following findings, the Environmental Coordinator makes the following determination:

- ☐ The proposed project **will not** have a significant effect on the environment and a Negative Declaration has been prepared.
- ☒ Although the project, as originally proposed, had a potential to have a significant effect on the environment, the project has been modified by incorporating measures to mitigate the potential impacts into the conditions of approval; therefore, a Mitigated Negative Declaration has been prepared.

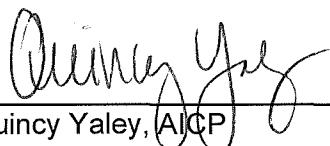
The attached Initial Study incorporates all relevant information regarding the potential environmental effects of the project, includes project mitigation measures, and confirms the determination that an Environmental Impact Report (EIR) is not required for the project.

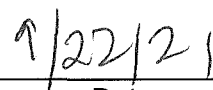
### FINDINGS

- A. The proposed project will not result in significant adverse impacts to the environment.
- B. The Mitigated Negative Declaration was prepared in accordance with the California Environmental Quality Act (CEQA) and State and County Guidelines for the implementation of CEQA.
- C. The Mitigated Negative Declaration reflects the independent judgment of the County of Tuolumne.
- D. Pursuant to Section 21081.6(a)(1) of the Public Resources Code, a reporting and/or monitoring plan has been prepared, as incorporated into the conditions of project approval, in order to avoid significant effects to the environment.
- E. The conditions of project approval are roughly proportional to the respective potential environmental impacts associated with the proposed project.
- F. Pursuant to Section 21081.6(a)(2) of the Public Resources Code, the custodian and location of the documents and materials which constitute the record of proceedings upon which this decision to adopt the Mitigated Negative Declaration had been made are as follows:

Environmental Coordinator/Community Development Department Director, Tuolumne County  
Community Development Department, 48 Yaney, Sonora, California.

Fire Protection, Tuolumne County Fire Department, 48 Yaney, Sonora, California.

  
\_\_\_\_\_  
Quincy Yaley, AICP  
Environmental Coordinator

  
\_\_\_\_\_  
Date

QY:nr

## EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

## **AESTHETICS:**

Issues and Supporting Information Sources	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
<b>Would the Proposed Project/Action:</b>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experiences from publicly assessable vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## **Environmental Setting:**

Visual or aesthetic resources are generally defined as the natural and built features of the landscape that can be seen. The combination of landform, water, and vegetation patterns represents the natural landscape that defines an area's visual character, whereas built features such as buildings, roads, and other structures reflect human or cultural modifications to the landscape. These natural and built landscape features or visual resources contribute to the public's experience and appreciation of the environment. Depending on the extent to which a project's presence would alter the perceived visual character and quality of the environment, visual or aesthetic impact may occur. It should be noted that visual change in and of itself does not necessarily represent an adverse impact, and in some cases may result in a beneficial visual effect.

The aesthetic analysis is based on field observations and the review of information including site maps, drawings, technical data, and aerial and ground level photographs of the area. In addition, as part of this study, planning documents pertinent to visual quality including the Tuolumne County General Plan were reviewed. The analysis also responds to the California Environmental Quality Act (CEQA) guidelines for visual impact analysis as well as the goals, programs, and implementation programs outlined in the Tuolumne County General Plan and the Tuolumne County Ordinance Code.

The Tuolumne County General Plan recognizes agricultural and timberlands as having historically defined the rural character and scenic beauty of the County. There are no scenic vistas within the project vicinity at the project site. There are existing light sources on the site associated with the existing single-family dwellings and accessory structures.

Policy 16.A.1 of the Natural Resources Element of the 2018 Tuolumne County General Plan states the following:

Recognize that agricultural and timberlands have historically defined the rural character and scenic beauty of Tuolumne County.

Implementation Program 16.A.a of the Natural Resources Element states the following:

Exempt lands designated on the General Plan land use diagrams as Timberland Production Zone, or Agricultural when the parcel is 37 acres or larger and supports an agricultural or residential land use

or is vacant, from the County's programs for conserving scenic resources, as these lands provide scenic value without participating a scenic resources program.

Policy 16.A.3 of the Natural Resources Element of the 2018 Tuolumne County General Plan directs the County to conserve the natural scenic quality of hillsides and hilltops throughout Tuolumne County. Implementation Program 16.A.e encourages hillside development to be designed and located to be compatible with, rather than imposed on, the landscape and environment by minimizing the amount of grading and topographical alteration it necessitates. Implementation Program 16.A.f directs the County to maintain hillside development guidelines which provide recommendations for integrating new construction with hillsides and hilltops. Policy CB-E.1 of the Columbia Community Plan directs the County to “protect outstanding scenic and historic resources, including hillsides and hilltops, which contribute to the visual quality and rural character of the Columbia community. Implementation Program CB-E.a of the Columbia Community Plan requires developers to utilize the Tuolumne County Hillside and Hilltop Development Guidelines when designing projects on hillsides and hilltops. The *Hillside and Hilltop Development Guidelines* were created to assist property owners with development of hillside and hilltop areas, consistent with the Policies and Implementation Programs listed above.

The project site is not located within an area that is subject to the Columbia Design Guidelines, nor does it contain the Design Review Combining (:D) or Historic Design Preservation Combining (:HDP) zoning districts. The project site is located within the area that is subject to the Columbia Community Plan. The project site is located within a rural area in the community of Columbia as the site is not served with public water or public sewer.

Policy CB-A.1 of the Columbia Community Plan directs the County to “maintain the rural, small-town atmosphere of the Columbia area by preserving the mixture of urban and non-urban land uses found in the area.”

The project site is located within a rural area. The site is developed with two single-family dwellings, private sewage disposal systems, private wells, and accessory structures including garages, sheds, corrals, and historic structures associated with the Solari Ranch. Vegetation on the site includes open areas of annual grassland, riparian habitat along the drainages, and a mix of oaks and conifers. The area along the western portion of the site contains steep slopes. The portion along the eastern portion contains gentler, rolling hills.

Potentially affected viewers in the area includes motorists, residents, and other viewers along North Airport Road and Chili Gulch Road. Motorists would represent the largest of the affected viewer groups and include the public views of the project site. Other viewers include residents in the area and private views from surrounding residents and properties. Parcels to the north and south are developed with scattered rural residences with parcels ranging from 3 acres to 25 acres. The Columbia Airport is located to the east of the project site. Parcels to the west and northwest are public parcels managed by the Bureau of Land Management (BLM). Due to the steep topography and terrain of these adjacent public parcels, they are not readily accessible to members of the public.

### **Analysis:**

- a) A scenic vista is considered a view of an area that has remarkable scenery or a natural or cultural resource that is indigenous to the area. There are three vista points within Tuolumne County that have been officially designated by the California Department of Transportation (Caltrans) as a scenic vista point. Two of these are found at Lake Don Pedro and the third one is the “Rim of the World” which is along State Highway 120 east of the community of Groveland. The project site is currently a vacant property with unmaintained vegetation that includes oak woodlands, conifer trees, and grasslands and does not offer long-distance or unique scenic views. As previously described in Policy 16.A.1 and Implementation Program 16.A.a of the General Plan, scenic beauty within the county is

characterized by areas containing agricultural lands or timberland. The project consists of splitting a 160.9± acre parcel zoned AE-37 with the AG General Plan designation into 4 parcels which would retain the AE-37 zoning and AG General Plan designation. Each parcel would be at least 37 acres in size and could be utilized for agricultural uses, consistent with Policy 16.A.1 and Implementation Program 16.A.a. Therefore, the project site would retain its scenic quality as agricultural lands and there would be less than-significant impacts to a scenic vista.

- b) Tuolumne County does not currently have any officially designated state scenic highways, although portions of State highways 49, 108, 120 are eligible for designation. These portions have been identified as locally designated scenic routes. State Highway 49 has been recognized as a locally designated scenic route from the Mariposa County Line to Route 120 near Moccasin Creek and from Route 120 at Chinese Camp to the Calaveras County line, exclusive of the City of Sonora. State Highway 108 from the intersection with State Highway 49 easterly to the Mono County line has also been recognized as a locally designated scenic highway. The nearest portion of a locally designated scenic route to the project site State Highway 49 approximately 8,500 feet to the south of the project site. The project site is not visible from any officially designated or locally designated state scenic highway. Therefore, there is no impact.
- c) The visual character of a project can result in potential impacts from project construction and operation. Impacts are discussed for construction and operation separately, below.

#### Construction

Construction activities may take place on the project site in the future for development of additional single-family dwellings. Construction activities would also be associated with improving the existing driveway to Title 11 standards for the use as a common driveway. Construction-related activities would involve construction workers and the use of construction equipment, vehicles, and building materials. Temporary construction activities would be consistent in visual character with small-scale building and landscaping projects.

#### Operation

The project site is located within a rural area as it is not served with public water and sewer. The project is located within the area that is subject to the Columbia Community Plan. Policy CB-A.4 of the Columbia Community Plan indicates that new development within Columbia is subject to the Columbia Design Guidelines if the parcels contains the Design Review Combining (:D) zoning. The project site does not contain the :D zoning and is therefore not subject to the Columbia Design Guidelines.

The *Hillside and Hilltop Development Guidelines* were created to assist property owners with development of hillside and hilltop areas, consistent with the Policy 16.A.3 and Implementation Programs 16.A.e and 16.A.f listed above. When the following apply, the *Hillside and Hilltop Development Guidelines* are required to be utilized:

1. The project is subject to the California Environmental Quality Act, and
2. The site, or a portion of the site, is located within a hillside or hilltop area, which is characterized by average slopes of 20% or greater, or the crest of a ridge or hilltop, and
3. The hillside and/or hilltop is visible from a State highway, arterial or a major collector road; or
4. Within the Columbia area, the hillside and/or hilltop is visible from Sawmill Flat Road or Yankee Hill Road.

The project would be required to implement the *Hillside and Hilltop Development Guidelines* for future development because the project sit includes a hillside and hilltop area and contains average slopes

greater than 20% on the western portion of the site. However, the applicant has proposed an Open Space plan require by Mitigation Measure BIO-1 that would include the areas of the project site containing slopes greater than 20% and the areas on the hillside and hilltop. Due to the limitations of the Open Space zoning, these areas would not be able to be constructed with any structures. No work is currently proposed in these Open Space areas. Therefore, the project would support Policy 16.A.3 and Implementation Programs 16.A.e and 16.A.f of the General Plan and Policy CB-E.1 and Implementation Program CB-E.a of the Columbia Community Plan.

The project site would support Policy CB-A.1 of the Columbia Community Plan because it would offer large, rural parcels. The parcels would be larger than other parcels in the vicinity. The large parcel size and agricultural and ranching uses would support the small-town and historic atmosphere of Columbia.

The project site has very limited frontage along North Airport Road and Chili Gulch Road. A majority of the project site is not visible from a public road or other viewpoint due to the size of the parcel, topography, and existing vegetation. Parcels to the east and northeast are public parcels managed by the BLM. However, due to the steep topography and terrain, these parcels are not readily accessible by the public. The potential development of the project site would be consistent with other parcels in the vicinity and would not substantially degrade the existing visual character. Additionally, the project will be required to incorporate Open Space zoning to protect cultural and biological resources on site. Due to the development restrictions in the Open Space zoning, these areas will remain as naturally vegetated buffers. There would be a less than significant impact.

- d) New sources of light and glare will be introduced as a part of the project. Sources of light and glare would be residential in nature. Exterior lighting would be used around residences, in outside patio areas, and parking areas. Mitigation Measure AES-1 has been incorporated into the project to reduce this impact to a less than significant level by implementing Dark Sky lighting, such fixtures that minimize glare while reducing light trespass and skyglow. Mitigation Measure AES-1 will require any exterior lighting to incorporate the following: direct the light downward to the area to be illuminated, install shields to direct light and reduce glare, utilize low rise light standards or fixtures attached to the buildings, and utilize low or high pressure sodium lamps instead of halogen type lights. The project proponent will be required to submit a lighting plan to show consistency with the above provisions. Consistency with Mitigation Measure AES-1 will be reviewed by Community Development Department (CDD) staff upon receipt of a building permit for any structure on site. The lighting plan will be required to be reviewed and approved by CDD Staff prior to the issuance of a building permit. There would be a less than significant impact with mitigation.

#### **Mitigation Measures:**

**AES-1:** A lighting plan shall be submitted and approved by the Land Use and Natural Resources Division prior to the issuance of a building permit by the Building and Safety Division. Any exterior lighting shall incorporate the following features: direct the light downward to the area to be illuminated, install shields to direct light and reduce glare, utilize low rise light standards or fixtures attached to the buildings, and utilize low or high pressure sodium lamps instead of halogen type lights.

#### **Mitigation Monitoring:**

Mitigation Measures AES-1 will be required to be met prior to the issuance of a building permit by the Building and Safety Division. Consistency will be verified by the Land Use and Natural Resources Division upon review of a building permit application. A Notice of Action will be recorded to advise future owners of the required mitigation measures and the responsibility to comply with said measures.

## **AGRICULTURAL AND FORESTRY RESOURCES:**

In determining whether the impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation, as an optional model to use in assessing impacts on farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land. This includes: Forest and Range Assessment Project, the Forestry Assessment Project and Forest Carbon Measurement methodology provided in Forest Protocols, adopted by the California Air Resources Board.

	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
<b>Issues and Supporting Information Sources</b>				
<b>Would the Proposed Project/Action:</b>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forest land, or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## **Environmental Setting:**

Lands of agricultural importance in Tuolumne County are designated AG (Agricultural), TPZ (Timber Production), or O (Open Space) by the General Plan land use diagrams. Exclusive agricultural properties contain the AE-160 (Exclusive Agricultural, One Hundred Sixty Acre Minimum), AE-80 (Exclusive Agricultural, Eighty Acre Minimum), and AE-37 (Exclusive Agricultural, Thirty-Seven Acre Minimum) Zoning. Parcels within the Williamson Act must contain the Agricultural Preserve Combining (:AP) zoning, as required by Tuolumne County Resolution 106-04. Chapter 8 of the 2018 Tuolumne County General Plan contains the Goals, Policies, and Implementation Programs related to agriculture in Tuolumne County. The project was reviewed for consistency with the Agricultural Element of the General Plan. The project site is currently zoned AE-37 and contains the AG General Plan land use designation.

Policy 8.B.6 of the Agricultural Element of the 2018 General Plan States:

Refer applications for discretionary land use entitlements submitted to the Community Resources Agency proposing development of parcels that are zoned AE (AE-37, AE-80 or AE-160), are at least 37 gross acres in area and are located adjacent to land designated for agricultural use to the Agricultural Advisory Committee for review and recommendation regardless of the General Plan land use designation of the parcel to allow an opportunity to comment on impacts to adjacent agricultural land.



Policy 8.A.4 of the Agricultural Element of the 2018 General Plan states the following:

Development proposed adjacent to land designated Agricultural by the General Plan land use diagrams shall provide a buffer from the agricultural land. The buffer shall be 200 feet in width and located on the development site. No residential or non-agricultural buildings may be erected in the buffer area as long as the adjacent land remains designated Agricultural. The buffer may be reduced in width by the Board of Supervisors after considering the recommendation of the Agricultural Advisory Committee if such a reduction is determined appropriate based upon the topography, vegetation, roads or other physical features of the buffer area or other factors considered by the Committee. If the General Plan land use designation of the adjacent land is amended in the future to a designation other than Agricultural, the need for the buffer area will be eliminated and the land use restrictions imposed pursuant to this Policy will cease at that time.

#### California Land Conservation Act

The California Land Conservation Act of 1965 (Williamson Act) enables local governments to enter into contracts with private landowners for preserving agricultural land or related open space uses. Land under agricultural production can have its annual assessed valuation for property tax calculation reduced if the owner agrees to place the land under a Williamson Act contract for 10 years, renewable annually. Tuolumne County Resolution 106-04, approved by the Board of Supervisors on June 15, 2004, contains the County's rules and regulations to govern land within Agricultural Preserves and land within the Williamson Act Land Conservation Program.

#### Z'berg-Nejedly Forest Practice Act of 1973

The project site is located on private property and as such for actions related specifically to potential impacts from forest resources could be subject to the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 (FPA) that have been promulgated as the California Forest Practice Rules. Land within Tuolumne County that is subject to the Z'berg-Nejedly Forest Practice Act of 1973 is demonstrated by the TPZ (Timberland Preserve) zoning district and the TPZ General Plan land use designation.

#### **Analysis:**

- a) The project site has not been mapped under the Farmland Mapping and Monitoring Program of the California Resources Agency. However, the project site has been mapped under the United States Department of Agriculture Natural Resources Conservation Service web soil survey maps. The project site contains the Angelscreek-Pentz complex, Sierra-Flanly complex, Sierra-Orose complex, Deerflat-Millvilla complex, Beybek-Rock outcrop complex. None of these soil types are considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Agricultural Rating System Matrix was utilized to assign a score to the project site. The project site received a score of 168, which is considered agricultural land of local importance pursuant to the Agricultural Element of the 2018 Tuolumne County General Plan. The project site is currently zoned AE-37 and contains the AG General Plan land use designation. The project consists of Tentative Parcel Map T20-006 to divide the 160.9± acre parcel into 4 parcels. The parcels would be consistent with the existing General Plan and zoning district and would meet the minimum parcel size requirements and will therefore retain the Agricultural General Plan and AE-37 zoning. The project would not involve the conversion of agricultural land to a non-agricultural use. Therefore, there would be a less than significant impact.
- b,e) The project site is zoned AE-37, contains the AG general plan designation, and is within Agricultural Preserve 169. The project involves dividing the 160.9-acre site into four parcels which are consistent with the existing zoning and General Plan designation. The project would not involve a change in use and would allow for continued and future agricultural uses that are currently permitted on site. The parcels would range in size from 39.2± acres to 41.4± acres, which would still allow for agricultural uses on site. Following approval of Tentative Parcel Map T20-006, the parcels would meet the

requirement for inclusion in an Agricultural Preserve. Rule 3A(1) of Tuolumne County Resolution 106-04 indicates that the minimum size for an Agricultural Preserve is 100 acres, which may consist of more than one parcel if they are contiguous or under common ownership. The project site will remain in Agricultural Preserve 169 and would allow for future property owners to enter into a Williamson Act Land Conservation Contract in the future if requested.

The project was considered by the Agricultural Advisory Committee on September 17, 2020 to review the project for consistency with the AE-37 zoning, the Agricultural Element of the Tuolumne County General Plan, and Tuolumne County Resolution 106-04. The project was not subject to the 200' agricultural buffer required by Policy 8.A.4 of the Agricultural Element because none of the parcels adjacent to the project site contain the AG General Plan designation and because the site would retain the AG designation and AE-37 zoning. There would be a less than significant impact.

- c,d) The TPZ zoning district is for the protection of timberland, to prevent encroachment by incompatible land uses, and for the general welfare of the County. This zone is intended to qualify its land pursuant to Z'bergWarren-Keene-Collier Forest Taxation Reform Act of 1976 or such other legislative statutes or constitutional authorization as may be developed for defining a timberland preserve. The TPZ land use designation provides for the growing and harvesting of timber and other forest products in concert with limited, low-intensity public and private commercial recreational uses. Typical land uses allowed in the TPZ designation include all commercial timber production operations and facilities, agricultural operations, mineral and other resource extraction operations, recreation uses such as public utility and safety facilities.

The project site does not contain the TPZ zoning district or the TPZ General Plan land use designation. There are no parcels within the vicinity of the project site that contain the TPZ zoning district or the TPZ land use designation. The nearest parcel with the TPZ zoning is located approximately 3.2± miles east of the project site.

The California Department of Forestry and Fire Protection (CalFire) regulates timber harvesting and logging on privately owned lands in California. Prior to the conversion of land to a land use other than growing timber, a Timberland Conversion permit must be reviewed and approved by CalFire. The project site is currently vacant and contains commercial tree species, as defined by CalFire. If the project will require the cutting or removal of commercial tree species, the project proponent is required to submit a timber harvest plan to CalFire for their review and approval. If the area of timber harvest is less than three acres in size, a Less Than Three Acre Conversion Exemption may be obtained from CalFire. The project will be conditioned to require a timber harvest plan or application for Less Than Three Acre Conversion Exemption to be submitted to CalFire for review and approval prior to the cutting or removal of commercial tree species. The approved harvest plan or exemption from CalFire will be required to be submitted to the Land Use and Natural Resources Division. Compliance with this requirement would result in a less than significant impact on timberland.

**Mitigation Measures:** None Required

**Mitigation Monitoring:** Not Applicable

## **AIR QUALITY:**

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations:

Issues and Supporting Information Sources	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
Where available, the significance criteria established by the Tuolumne County Air Pollution Control District has been relied upon to make the following determinations. Would the Proposed Project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## **Environmental Setting:**

This section describes the impacts of the proposed project on local and regional air quality. It describes existing air quality in the foothills; project related direct and indirect emissions; health effects; and the impacts of these emissions on both the project and cumulative/regional scale.

The U.S. Environmental Protection Agency (EPA) designated Tuolumne County as “attainment/unclassified” for the 2008 eight-hour federal ozone standard on July 20, 2012. Tuolumne County is “attainment/unclassified” for all other federal ambient air quality standards. With respect to State ambient air quality standards, Tuolumne County is classified as “nonattainment” for ozone and “attainment/unclassified” for all other State standards. The State ozone “nonattainment” status is due to overwhelming transport of ozone precursors from upwind, urban areas.

Air pollution is directly related to a region’s topographic features, and the California Air Resources Board. (CARB) has divided California into regional air basins according to topographic air drainage features. The Mountain Counties Air Basin (MCAB) includes Plumas, Sierra, Nevada, Placer (middle portion), El Dorado (western portion), Amador, Calaveras, Tuolumne, and Mariposa Counties. While the MCAB encompasses such an expansive territory, the population of the entire air basin is less than 500,000 (472,991 in 2010). The basin lies along the northern Sierra Nevada Mountain Range, close to or contiguous with the Nevada border, and covers an area of roughly 11,000 square miles.

Elevations range from over 10,000 feet at the Sierra crest down to several hundred feet above sea level at the Stanislaus County boundary. Throughout the MCAB basin, the topography is highly variable, and includes rugged mountain peaks and valleys with extreme slopes and differences in elevation in the Sierras, as well as rolling foothills to the west.

The general climate of the MCAB varies considerably with elevation and proximity to the Sierra ridge. The terrain features of the basin make it possible for various climates to exist in a relatively close proximity. The Sierra Nevada receives large amounts of precipitation in the winter, with lighter amounts in the summer. Precipitation levels are high in the highest mountain elevations but decline rapidly toward the western portion of the basin. Winter temperatures in the mountains can be below freezing for weeks at a time, and

substantial depths of snow can accumulate, but in the western foothills, winter temperatures usually dip below freezing only at night and precipitation is mixed as rain or light snow. In the summer, temperatures in the mountains are mild, with daytime peaks in the 70s to low 80s, but the western end of the basin can routinely exceed 100 degrees.

#### Local Climate and Sources of Air Pollution

The climate in Tuolumne County can be considered Mediterranean with moist and cold winters and warm and dry summers. The mean annual precipitation is 33 to 49 inches (838 to 1,245 millimeters). Mean annual temperature is 41 to 53 degrees F (5.0 to 11.7 degrees C). The frost-free period is 100 to 150 days.

<b>Table 1. Tuolumne County Designations and Classifications</b>		
<b>Pollutant</b>	<b>Designation/Classification</b>	
	<b>Federal Standard</b>	<b>State Standard</b>
Ozone - One hour	No Federal Standard	Nonattainment
Ozone - Eight hour	Attainment/Unclassified	Unclassified
PM 10	Unclassified	Unclassified
PM 2.5	Attainment/Unclassified	Unclassified
Carbon Monoxide	Attainment/Unclassified	Attainment
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Unclassified	Attainment
Lead (Particulate)	Attainment/Unclassified	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Source: CARB "Inhalable coarse particles (PM2.5-10)," such as those found near roadways and dusty industries, are between 2.5 and 10 micrometers in diameter. PM2.5-10 is deposited in the thoracic region of the lungs. "Fine particles (PM2.5)," such as those found in smoke and haze, are 2.5 micrometers in diameter and smaller. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries and automobiles react in the air. They penetrate deeply into the thoracic and alveolar regions of the lungs.		

The Tuolumne County Air Pollution Control District (TCAPCD) does not meet the state one-hour standard for ozone or for PM 2.5. The TCAPCD is designated as unclassified for the State PM10 standards, since no PM10 data is available for this area. The District is either in attainment or in an unclassified area for the remainder of the pollutants in Table 1, due to the lack of availability of data. The Mountain Counties Air Basin typically experiences good air quality, however pollution from the Central Valley

Local jurisdictions have the authority and responsibility to reduce air pollution through their policies, codes, and land use planning. The project was evaluated under the California Air Resource Board (CARB) air quality standards and area designations, and the Tuolumne County Air Pollution Control District's thresholds of significance, and the Tuolumne County Ordinance Code and Tuolumne County General Plan.

TCAPCD is the primary agency responsible for planning to meet National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) in the County and is responsible for implementing emissions standards and other requirements of federal and state laws regarding most types of stationary emission sources. In addition, TCAPCD has also set emissions thresholds for certain pollutants for the purposes CEQA. Pursuant to the State CEQA Guidelines, air quality impacts from project implementation would be significant if the project would:

- violate any air quality standard or contribute substantially to an existing or project air quality violation—for the purposes of the project locations, result in construction or operations of a project that generated emissions in excess of the following thresholds, except CO, used by TCAPCD (2017):
- reactive organic gases (ROG) – 1,000 pounds per day (lb/day) or 100 tons per year (tpy)

- oxides of nitrogen (NO<sub>x</sub>) – 1,000 lb/day or 100 tpy
- PM<sub>10</sub> – 1,000 lb/day or 100 tpy
- CO – 1,000 lb/day or 100 tpy
- expose sensitive receptors to a substantial incremental increase in toxic air contaminant (TAC) emissions; or create objectionable odors affecting a substantial number of people

Primary criteria pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory) into the atmosphere. Primary criteria pollutants include carbon monoxide (CO), reactive organic gases (ROG), oxides of nitrogen (NO<sub>x</sub>), respirable and fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), and lead. Secondary criteria pollutants are created by atmospheric chemical and photochemical reactions; ROG together with NO<sub>x</sub> form the building blocks for the creation of photochemical (secondary) pollutants. Secondary criteria pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog). The characteristics, sources, and effects of the criteria air pollutants of most concern are described below.

Carbon Monoxide, CO, is a local pollutant that is found in high concentrations only near the source. The major source of CO, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually found only near areas of high traffic volumes. CO's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity, and impaired mental abilities.

Ozone is produced by a photochemical reaction (triggered by sunlight) between NO<sub>x</sub> and ROG. NO<sub>x</sub> is formed during the combustion of fuels, while ROG is formed during combustion and evaporation of fossil fuels and organic solvents. Because ozone requires sunlight to form, it mostly occurs in concentrations considered serious between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans, including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Nitrogen Dioxide, NO<sub>2</sub>, is a byproduct of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of NO<sub>x</sub> produced by combustion is NO, but NO reacts rapidly to form NO<sub>2</sub>, creating the mixture of NO and NO<sub>2</sub> commonly called NO<sub>x</sub>. NO<sub>2</sub> is an acute irritant. A relationship between NO<sub>2</sub> and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 part per million may occur. NO<sub>2</sub> absorbs blue light and causes a reddish-brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of PM<sub>10</sub> and acid rain.

PM<sub>10</sub> is respirable particulate matter (PM) measuring no more than 10 microns in diameter, while PM<sub>2.5</sub> is fine PM measuring no more than 2.5 microns in diameter. PM<sub>10</sub> and PM<sub>2.5</sub> are mostly dust particles, nitrates, and sulfates. Both PM<sub>10</sub> and PM<sub>2.5</sub> are byproducts of fuel combustion and wind erosion of soil and unpaved roads and are directly emitted into the atmosphere through these processes. They are also created in the atmosphere through chemical reactions. The characteristics, sources, and potential health effects associated with respirable particulates (those between 2.5 and 10 microns in diameter) and fine particulates (PM<sub>2.5</sub>) can be very different. Respirable particulates generally come from windblown dust and dust kicked up from mobile sources. Fine particulates are generally associated with combustion processes and are formed in the atmosphere as a secondary pollutant through chemical reactions. PM<sub>2.5</sub> is more likely to penetrate deeply into the lungs and poses a health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the PM<sub>10</sub> and PM<sub>2.5</sub> that is inhaled into the lungs remains there. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Sulfur Dioxide, SO<sub>2</sub>, is a colorless, pungent, irritating gas formed primarily by the combustion of sulfur-

containing fossil fuels. In humid atmospheres, SO<sub>2</sub> can form sulfur trioxide and sulfuric acid mist, with some of the latter eventually reacting to produce sulfate particulates. This contaminant is the natural combustion product of sulfur or sulfur-containing fuels. Fuel combustion is the major source, while chemical plants, sulfur recovery plants, and metal processing are minor contributors. At sufficiently high concentrations, SO<sub>2</sub> irritates the upper respiratory tract. At lower concentrations, when in conjunction with particulates, SO<sub>2</sub> appears able to do still greater harm by injuring lung tissues. Sulfur oxides, in combination with moisture and oxygen, can yellow the leaves of plants, dissolve marble, and eat away iron and steel. Sulfur oxides can also react to form sulfates, which reduce visibility.

Regarding odors, there are no sources of odor adjacent to the project site. There are no major sources of Toxic Air Contaminants on or near the project site

### **Analysis:**

- a) Tuolumne County does not currently have an air quality plan. Tuolumne County's 2018 General Plan contains an Air Quality Element. The project has been reviewed for consistency with the Air Quality Element of the 2018 General Plan. The following goals, policies, and implementation programs of the Air Quality Element apply to the project:

**Policy 15.A.1:** *Accurately determine and fairly mitigate the local and regional air quality impacts of land development projects proposed in the County.*

The CalEEMod was used to determine the air quality impacts of the project. The estimated emissions are less than the thresholds set by the County, therefore no mitigation measures are needed. See the analysis in section b below for additional information.

Implementation Program 15.A.k directs the County to require dust-control measures during project related activities. Any grading on the site is required to be in conformance with Chapter 12.20 of the TCOC. Section 12.20.370 of the TCOC requires the use of a watering truck or other watering device to suppress dust. Tentative Parcel Map T20-006 will be conditioned to meet these requirements.

The project is consistent with the Air Quality Element of the 2018 General Plan. Therefore, there is a less than significant impact.

- b) The project would result in temporary increases in criteria air pollutants and precursors during construction activities, primarily associated with heavy-duty equipment use, worker commute, and material haul trips. Operation of the project would result in permanent increases in vehicular use, resulting in increases in exhaust emissions. Construction and operations are discussed separately below.

### **Construction**

Construction activities would include grading/excavation, foundation pouring, building construction, and paving, and would occur sequentially (i.e., would not overlap). Typical construction equipment would include dozers, excavators, loaders/backhoes, paving equipment, forklifts, and haul trucks.

Construction-related emissions would be temporary in nature. Emissions of NO<sub>x</sub> would be primarily associated with off-road (e.g., gas and diesel) construction equipment exhaust; additional sources would include on-road trucks for import and export of materials and worker vehicles for commuting. Worker commute trips in gasoline-fueled vehicles, off gassing from asphalt application, and application of architectural coatings would be the principal sources of ROG. Emissions of fugitive PM or dust (PM<sub>10</sub> and PM<sub>2.5</sub>) are associated primarily with ground disturbance activities during site preparation and grading, and may vary as a function of soil silt content, soil moisture, wind speed,

acreage of disturbance area, and vehicle miles traveled on-site and off-site. Exhaust emissions from diesel equipment and worker commute trips also contribute to short-term increases in PM10 and PM2.5 emissions, but to a much lesser extent.

### Operation

Regional area- and mobile-source emissions of criteria air pollutants and precursors (i.e., ROG, NOX, CO, PM10, and PM2.5) generated by operation of the project were modeled using CalEEMod. CalEEMod allows land use selections that include location-specific information and trip generation rates. CalEEMod calculates area-source emissions from the usage of landscape maintenance equipment and consumer products and calculates mobile-source emissions associated with vehicle trip generation.

The CalEEMod version 2016.3.2 was utilized to estimate project construction and operational emissions. CalEEMod default settings were used, unless otherwise adjusted as noted in the summary report. The project construction and operational emissions are summarized in the Table 2 below. Each of the emissions was found to be less than the thresholds established by the Tuolumne County Air Pollution Control District (TCAPCD) for ROG, NO<sub>x</sub>, PM<sub>10</sub>, and CO. See Appendix A for the complete model output.

<b>Table 2: Emissions Model Summary</b>				
	<b>ROG (tons/year)</b>	<b>NO<sub>x</sub> (tons/year)</b>	<b>PM<sub>10</sub> total (tons/year)</b>	<b>CO (tons/year)</b>
Annual Construction Emission	0.3282	3.3284	0.7618	2.2869
Annual Operational Emission	0.7889	0.2203	0.2100	1.5375
TCAPCD Threshold	100	100	100	100
Exceed Significance Threshold?	No	No	No	No

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, TCAPCD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented above represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the MCAB's existing air quality conditions. If a project exceeds the designated significance thresholds, that project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. As presented above, the proposed project would be below all applicable thresholds during construction and operation. Thus, the project would not result in a cumulatively considerable contribution to the region's existing air quality conditions. There would be a less than significant impact.

- c) Sensitive receptors would include children, elderly, and people with cardiovascular and chronic respiratory diseases. Locations and types of land uses that would have sensitive receptors would include hospitals, schools, and care facilities.

Particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of diesel PM outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2005). No new stationary sources of TACs are proposed, and, therefore, diesel PM associated with construction-related equipment use and operational-related increases in vehicle trips is the focus of this analysis.

### Construction

Construction-related activities would result in temporary, short-term project-generated emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment for site preparation, paving, application of architectural coatings, on-road truck travel, and other miscellaneous activities. However, construction activities would be relatively minor and short. Construction-related emissions of PM<sub>10</sub>, used as a surrogate for diesel PM, would be minor and would not exceed applicable thresholds of significance (Table 2). Further, the dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment's (OEHHA) 2015 guidance, exposure of sensitive receptors to TAC emissions should be based on a 30-year exposure period for estimating cancer risk at the Maximum Exposed Individual (MEI), with 9- and 70-year exposure periods at the MEI as supplemental information. Furthermore, a 70- year exposure period is required for estimating cancer burden or providing an estimate of population-wide risk (OEHHA 2015). Thus, considering the relatively low amount of estimated emissions and the short duration of project construction, short-term emissions of diesel PM would not result in substantial pollution concentrations at existing nearby sensitive receptors.

### Operation

With respect to long-term operational increases in mobile-source TACs from implementation of the project, operation of the project would result in an additional 109.6 trips per day (See "Transportation" section for calculations). As shown in Table 2, operational emissions of PM<sub>10</sub>, a surrogate for diesel PM, would be substantially below TCAPCD thresholds of significance. In addition, estimated emissions of PM<sub>10</sub> would be dispersed over several roadways, resulting in lower levels of diesel PM at any one location in the County. Further, and in accordance with CARB guidance (2005), roadways with average daily traffic (ADT) exceeding 100,000 generally pose the greatest health risks. Thus, considering that the project would not substantial PM<sub>10</sub> emissions and project-generated ADT would be minimal in comparison to ADT levels known to generate the highest risk, the project would not result in operational mobile source emissions that could expose existing sensitive receptors to substantial pollution concentrations or exacerbate existing health risks from TAC emissions.

As discussed above, construction would be short (and would not result in substantial PM<sub>10</sub> emissions. Similarly, project operation would not result in substantial increases in mobile-source emissions. This impact would therefore be less than significant.

- d) The occurrence and severity of odor and dust impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of



sensitive receptors. Although offensive odors rarely cause physical harm, they may still be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies. Dust emissions can result in bad air quality and visibility, as well as airborne particulates that could result in breathing difficulty.

Development of the project would not introduce new, permanent sources of objectionable odors. Construction associated with the project could result in temporary odorous emissions from diesel equipment, asphalt paving, and the application of architectural coatings. However, such emissions would be short-term in nature and would dissipate rapidly with increasing distance from the source. Dust emissions (i.e., PM10) would not exceed applicable TCAPCD thresholds of significance such that an air quality standard would be violated.

Implementation of the project would not involve the construction or operation of any major odor sources, and, thus, the project would not result in the exposure of residences or other sensitive receptors to objectionable odors or dust emissions. This impact would be less than significant.

**Mitigation Measure:** None required.

**Mitigation Monitoring:** Not applicable.

## **BIOLOGICAL RESOURCES**

Issues and Supporting Information Sources	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
<b>Would the Proposed Project/Action:</b>				
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 Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **Environmental Setting:**

The Tuolumne County Wildlife Habitat Maps indicate that the chamise chaparral (chc), montane hardwood conifer (mhc), blue oak pine (bop), annual grassland (ags), residential park (rsp), mixed chaparral (mch), (LAK) and barren (bar) habitats are present on site. In addition to these habitats, site inspections by CDD staff indicated that there are riparian habitats present on site surrounding the drainages. These additional identified habitat areas consist of the valley-foothill riparian woodland (VRI).

Habitat definitions and priority rankings are indicated in the Tuolumne County Wildlife Handbook (TCWH). Residential Park habitat is a designation for urbanized areas and includes residential, commercial, and industrial developments, as well as landscaped parks and gardens. The annual grassland habitat is open grassland comprised primarily of annual grasses and forbs. The barren habitat is defined as areas with total plan cover of less than 2%, including trees, shrubs, and herbs. The rsp, ags and bar habitats are considered fourth priority habitats, which are common habitats that are of considerably low value to wildlife.

The chamise chaparral habitat is defined as habitat much like mixed chaparral, but chamise forms 60% or more of the total shrub cover. The montane hardwood conifer is defined as forests consisting of at least one-third hardwoods (not including riparian trees) and one third conifers, forming a dense canopy. The blue oak pine habitat is defined as foothill woodland dominated by blue oak, foothill-gray pine, and/or interior live oak, usually with a sparse to moderate canopy cover. The mixed chaparral is defined as foothill habitat dominated by one or more species of evergreen shrubs, including scrub oak, chaparral oak, ceanothus species,

manzanita species, and chamise. The chc, mhc, bop, and mch habitats are considered a third priority habitat, which are common habitats that are of considerable value to wildlife.

The valley-foothill riparian woodland habitat is defined as riparian deciduous woodland where mature trees are generally taller and may form wider stands along water sources. The lake, reservoir, or pond habitat is defined as areas holding water year-round, including both natural and constructed ponds. The LAK and VRI habitats are considered second priority habitats, which are target habitat which are essential for maintaining diverse and abundant wildlife in the County.

The project site supports hardwood, riparian, and grassland habitat and includes foothill gray pine (*Pinus sabiniana*), interior live oaks (*Quercus wislizeni*), valley oak (*Quercus lobata*), willow (*Salix* sp.), Himalayan blackberry (*Rubus discolor*), California coffeeberry (*Rhamnus californica*), manzanita (*Arctostaphylos manzanita*), elderberry shrub (*Sambucus mexicana*), and creeping myrtle (*Vinca minor*).

Wildlife was not observed by CDD staff during the site visit. However, evidence of mule deer (*Odocoileus hemionus*) and western gray squirrel (*Sciurus griseus*) were present on site. Both of these species are common wildlife species that are expected to occur in urban and semi-rural environments.

The project site provides suitable nesting habitat for ground and shrub/tree nesting birds. No nesting birds were observed during the site inspections by CDD staff. The project site provides suitable nesting habitat for ground nesting birds such as the California quail (*Callipepla californica*), and wild turkey (*Meleagris gallopavo*). The shrubs, pines, and oak trees also provide suitable nesting habitat for shrub/tree nesting birds and raptors.

The California Natural Diversity Database (CNDDDB) includes plants and animal species that are rare, threatened, or endangered within California. The CNDDDB is an inventory of these species and the location of known occurrences of these species. The California Native Plant Society (CNPS) maintains a database of rare and endangered plants of California. The US Fish and Wildlife Service (USFWS) maintains an Information for Planning and Consultation (IPac) database, which includes threatened and endangered species, critical habitats, and other special status species and sensitive habitats.

The CNDDDB maps were consulted for this project and they indicate that the special status plant species Tuolumne button-celery (*Eryngium pinnatisectum*) has been known to occur within the area of the project site. No other species listed on the CNDDDB have been known to occur within the project site.

Although a portion of the project site supports drainages and riparian areas, it does not contain an important regional wildlife corridor because the creek connects the various developed areas of Columbia and does not provide connectivity to larger patches of natural habitat on the landscape. Additionally, the drainages on site are ephemeral in nature and only have water flowing during portions of the year.

### **Regulatory Setting:**

Biological resources are regulated by federal, state, and local laws. In California and specifically in Tuolumne County, the Federal Endangered Species Act, Clean Water Act (CWA), CESA, Tuolumne County General Plan, the Tuolumne County Ordinance Code, and the Tuolumne County Wildlife Handbook are the primary regulations considered in this analysis.

### **Federal**

Pursuant to the ESA, USFWS and the National Marine Fisheries Service (NMFS) have authority over projects that may affect the continued existence of federally listed (threatened or endangered) species. Section 9 of ESA prohibits any person from "taking" an endangered or threatened fish or wildlife species or removing, damaging, or destroying a listed plant species on federal land or where the taking of the plant is

prohibited by state law. Take is defined under ESA, in part, as killing, harming, or harassing. Under federal regulations, take is further defined to include habitat modification or degradation where it results in death or injury to wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. If a proposed project would result in take of a federally listed species, the project applicant must consult with USFWS or NMFS before the take occurs under Section 10(a) of ESA or Section 7 of ESA if another federal agency is involved in the action. Conservation measures to minimize or compensate for the take are typically required.

Section 404 of the CWA requires project proponents to obtain a permit from the U.S. Army Corps of Engineers (USACE) before performing any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters of the United States, interstate waters, tidally influenced waters, and all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Many surface waters and wetlands in California meet the criteria for waters of the United States. In accordance with Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate regional water quality control board (RWQCB) indicating that the action would uphold state water quality standards.

### State

Pursuant to CESA, a permit from the California Department of Fish and Wildlife (CDFW) is required for projects that could "take" a species state listed as threatened or endangered. Section 2080 of CESA prohibits take of state-listed species. Under CESA, take is defined as any activity that would directly or indirectly kill an individual of a species. The definition does not include "harm" or "harass" like the federal act. As a result, the threshold for take under CESA is higher than under ESA (i.e., habitat modification is not necessarily considered take under CESA). Authorization for take of state-listed species can be obtained through a California Fish and Game Code Section 2081 incidental take permit.

The California Fish and Game Code identifies Fully Protected Species in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take. DFW has informed nonfederal agencies and private parties that their actions must avoid take of any fully protected species. In addition, Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, and falcons), including their nests or eggs.

Section 3503 of the Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes and Strigiformes), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs and/or young.

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW under Section 1602 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person, governmental agency, or public utility to do the following without first notifying CDFW:

- substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake; or
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel that has banks and supports fish or other aquatic life. This definition includes watercourses with a surface or subsurface flow that supports or has supported riparian vegetation. CDFW's jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife. A CDFW streambed alteration agreement must be obtained for any action that would result in an impact on a river, stream, or lake.

The State Water Resources Control Board (SWRCB) and each of nine local RWQCBs have jurisdiction over "waters of the State" pursuant to the Porter-Cologne Water Quality Control Act, Water Code Section 13000 et seq., which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. SWRCB has issued general Waste Discharge Requirements regarding discharges to "isolated" waters of the State (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction). The local RWQCB enforces actions under this general order for isolated waters not subject to federal jurisdiction and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the CWA for waters subject to federal jurisdiction.

#### Local

The Tuolumne County Wildlife Handbook (TCWH) and its associated maps detail the distribution of various habitat types countywide, evaluate their relative biological value, and establish Tuolumne County's standards and thresholds for evaluating the potential biological impacts pursuant to CEQA (Tuolumne County 1987). The avoidance and mitigation measures provided in the TCWH are intended to facilitate a consistent, fair, and cost-effective approach to wildlife mitigation that provides the greatest protection for the most sensitive resources. However, if a site-specific biological evaluation is conducted by a qualified biologist the environmental analysis and mitigation measures can rely on the recommendations of the biologist in lieu of the TCWH recommendations. The applicant has agreed to utilize the measures as indicated in the Tuolumne County Wildlife Handbook.

Implementation Program 16.B.i of the 2018 General Plan requires development that is subject to a discretionary entitlement from the County and to environmental review under the California Environmental Quality Act (CEQA) to evaluate potential impacts to biological resources and mitigate significant impacts for the following or as otherwise required by State or Federal law:

- Species listed or proposed for listing as threatened, rare, or endangered under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA);
- Species considered as candidates for listing under the ESA or CESA;
- Wildlife species designated by CDFW as Species of Special Concern;
- Animals fully protected under the California Fish and Game Code; and
- Plants considered by CDFW to be "rare, threatened, or endangered in California" (California Rare Plant Ranks [CRPR] of 1A, presumed extinct in California and not known to occur elsewhere; 1B, considered rare or endangered in California and elsewhere; 2A, presumed extinct in California, but more common elsewhere and 2B, considered rare or endangered in California but more common elsewhere).
- Sensitive natural communities, including wetlands under Federal or State jurisdiction, other aquatic resources, riparian habitats, and valley oak (*Quercus lobata*) woodland.
- Important wildlife movement corridors and breeding sites.
- Oak woodlands, as provided in Implementation Program 16.B.j.

Implementation Program 16.B.i of the Natural Resources Element of the 2018 General Plan requires development that is subject to a discretionary entitlement from the County and to environmental review under

CEQA to evaluate potential impacts to oak woodlands, as provided in Implementation Program 16.B.j. Implementation Program 16.B.j states as follows:

Establish thresholds of significance under the California Environmental Quality Act (CEQA) for the conversion of oak woodlands in Tuolumne County. The following provides the County's recommended standard guidelines for determining whether a project may result in a significant impact to oak woodlands, for purposes of review under the California Environmental Quality Act and Public Resources Code Section 21083.4.

- An oak woodland is defined in the General Plan as a woodland stand with 10% or greater native oak canopy cover. Tree removal from parcels with less than 10% native oak canopy cover is not considered a significant conversion or loss of oak woodland.
- For parcels with 10% or greater native oak canopy cover (i.e., parcels with oak woodland, as defined in the General Plan), a significant impact to oak woodland includes tree removal that reduces the total oak canopy cover onsite to below 10% (i.e., conversion to non-oak woodland), or a loss of 10% or greater of oak canopy woodland stand on the parcel, if the conversion or loss is determined by a trained professional to be substantial in consideration of, but not limited to, the following:
  - o Total acres and amount of woodland stand removed or disturbed, and amount retained onsite.
  - o Pattern of development or habitat loss onsite (e.g., clustered vs. dispersed).
  - o Existing habitat functions and quality (e.g., intact/high-quality, moderately degraded, or severely degraded).
  - o Stand age- or size-class structure.
  - o Rarity.
  - o Landscape position in relation to larger wildlife corridors, stream systems, or other important natural features.
  - o Loss of valley oak (*Quercus lobata*) woodland, which is a sensitive habitat.
  - o Proximity to other oak woodland patches and connectivity to large blocks of intact habitat.
  - o Contribution to a cumulative loss, degradation, or fragmentation of oak woodland across the County.
- Removal of valley oaks (*Quercus lobata*), regardless of woodland stand size or canopy cover, shall require evaluation and determination as set forth above, including consideration of any unique habitat value provided by valley oaks.

#### **Analysis:**

- a) Elderberry shrubs with stems greater than 1.0 inch in diameter were identified within the project site, with some located within riparian habitat. Elderberry shrubs of this size within riparian or aquatic habitats at this elevation are known host plants to the Valley Elderberry Longhorn Beetle (VELB), which is a threatened species under the Endangered Species Act. US Fish and Wildlife VELB guidance indicates that Elderberry shrubs located within riparian or aquatic habitats may provide habitat for VELB. Mitigation Measure BIO-1 requires the areas containing riparian and aquatic habitats to be protected with Open Space zoning. This would ensure protection of the elderberry shrubs within riparian habitat to be protected and would ensure that there would be no impact to the VELB that may potentially be on site. The requirements for Mitigation Measure BIO-1 are further described below.

To ensure that nesting bird and special status bird species are not impacted by project implementation, Mitigation Measure BIO-2 has been incorporated to require pre-construction bird surveys if construction is to take place between the nesting bird season, February 1 to August 31 of

any year. Mitigation Measure BIO-2 includes protocol to be implemented should an active bird nest be identified during the preconstruction survey.

The CNDDDB indicates that the plant species the Tuolumne button-celery (*Eryngium pinnatisectum*) has been known to occur within the area of the project site. Habitat for the Tuolumne button-celery includes wetlands and vernal pools. Potential habitat for the Tuolumne button-celery exists on the project site. Mitigation Measure BIO-1 would ensure that all riparian and aquatic habitats on site are protected with Open Space zoning. The Open Space zoning would ensure that there are no impacts to the Tuolumne button-celery or its habitat. No other special status species were indicated by the CNDDDB.

No critical habitat was identified by the CNDDDB, CNPS, or USFWS IPaC databases.

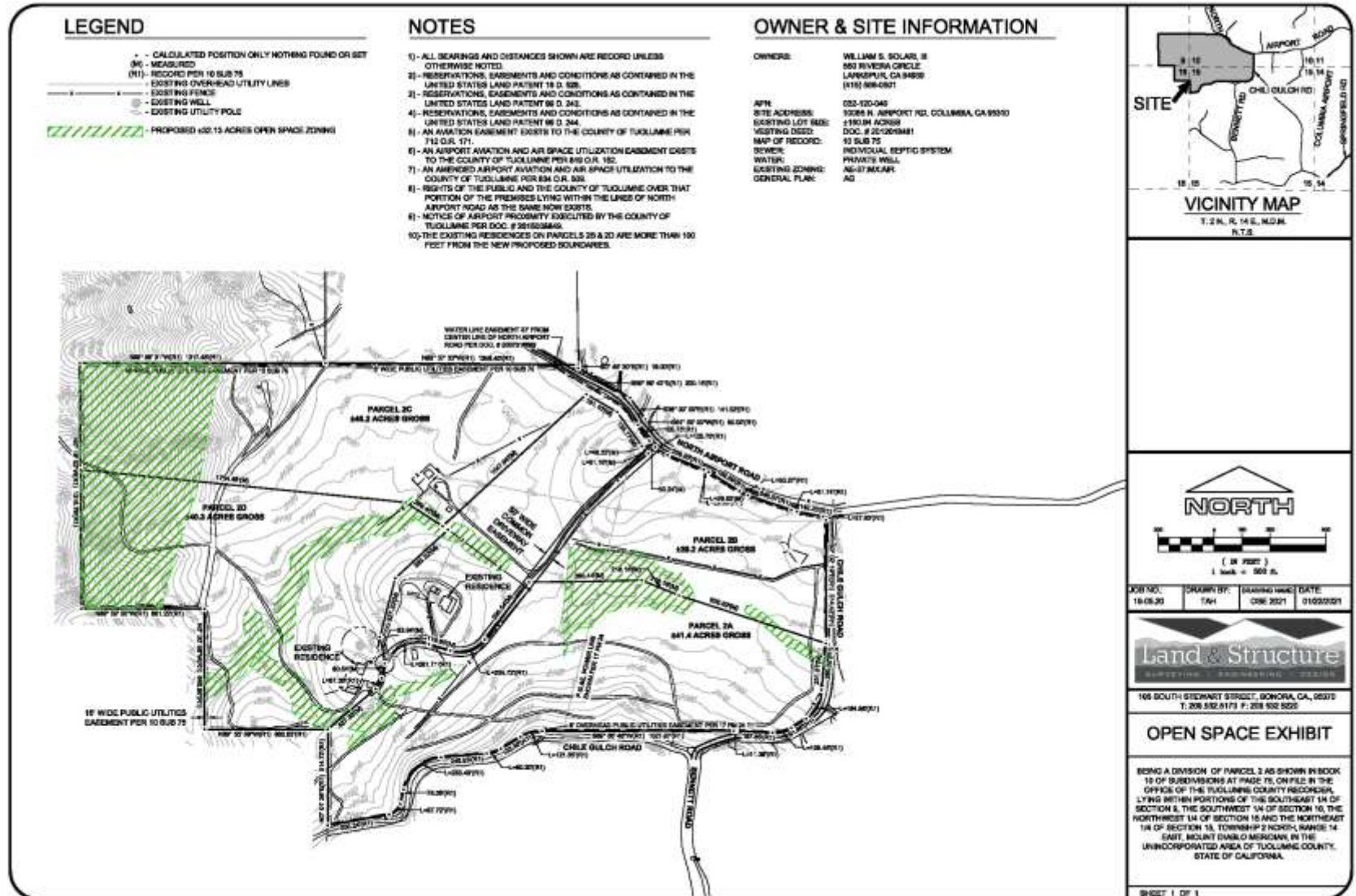
The implementation of Mitigation Measures BIO-1 and BIO-2 would result in a less than significant impact on special status species.

- b,c) A total of seven wetland and riparian habitat features were identified on the project site. Five of the identified riparian and aquatic resources are ephemeral drainages with water flowing only portions of the year. One of the riparian and aquatic resources is identified as a blue line stream on the Columbia USGS Quadrangle Map. One of the resources is identified as a spring-fed pond and water flow can be turned off and on. Currently, this resource is utilized as a livestock pond for cattle. These features will be required to be protected with Open Space zoning indicated in Mitigation Measure BIO-1. The applicant has provided an Open Space Exhibit map which places all of the identified riparian and aquatic resources as identified within Open Space zoning. The Open Space Exhibit also places much of the western boundary within Open Space, which includes the most dense and undisturbed habitat on site. This area also includes the highest elevation and steepest portion of the project site. The applicant is proposing a total of 32.13± acres of Open Space zoning, which is consistent with the recommendations of the TCWH.

Mitigation Measure BIO-1 will require Open Space zoning as around each of the riparian and aquatic features as identified above, as identified in the Open Space Exhibit Map shown below. The Open Space zoning will be required to be approved by the Tuolumne County Board of Supervisors prior to approval of the Final Map and will be required to be clearly indicated on the Final Map. Maintenance of existing roads would be permitted within Open Space. Vegetation removal for fire hazard reduction purposes and livestock grazing would also be permitted within Open Space. These activities have historically occurred within these areas on site and would not introduce new significant impact on these riparian and aquatic features. There is no development proposed within the areas to be designated Open Space (O). Additionally, crossing of these riparian and aquatic features may require additional review and permitting through the California Fish and Wildlife Service or the US Army Corps of Engineers.

Incorporation of Mitigation Measures BIO-1 would result in a less than significant impact on riparian and aquatic habitat.

Figure 1: Open Space Exhibit Map





- d) The project will be required to designate portions of the site to O zoning as required by Mitigation Measure BIO-1, described above. The areas required to be rezoned to O are found along riparian and aquatic habitats on site and along the western boundary of the project site. The western boundary of the project site connects to surrounding public lands under the jurisdiction of BLM and Army Corps of Engineers. Due to the zoning restrictions in the O zoning district, the areas to be designated O would allow for the movement of wildlife, to the extent that is possible as the riparian area is not considered a regional wildlife corridor. There is currently no development proposed within the areas designated O.

Mitigation Measure AES-1 as described above would require a lighting plan to be submitted and approved which would require the following standards: direct the light downward to the area to be illuminated, install shields to direct light and reduce glare, utilize low rise light standards or fixtures attached to the buildings, and utilize low- or high-pressure sodium lamps instead of halogen type lights.

Both of these mitigation measures would reduce impacts on native wildlife to a less than significant level. Therefore, there would be a less than significant impact.

- e) The project site contains blue oak woodland in the southern, north-central, and western portion of the project site. The project site contains old growth oaks, which are oak trees larger than 24 inches dbh. Oak woodland habitat comprises approximately 50 acres or 31% of the project site, as indicated by the wildlife maps. The densest areas containing oak woodland habitat are surrounding the drainages on site and the western portion of the project site, which have been proposed for inclusion in the Open Space Exhibit Map, as shown above. Staff has analyzed project impacts under Implementation Program 16.B.j and 16.B.j.1 of the Tuolumne County General Plan regarding impacts to oak tree woodland.

Guidance for development of parcels larger than 19.99 acres in size would disturb approximately 2 acres for the development of each single-family home. The project would potentially allow for the development of 6 additional single-family dwellings and 4 ADUs. This could result in the potential disturbance of 20 acres of oak woodland habitat. However, due to the clustering of oak woodland habitat along property boundaries within required building setback areas, it is unlikely that the construction of future single-family dwellings would take place entirely within oak woodland habitat. Additionally, much of the oak woodland habitat is centered around the drainages, which would be protected by Open Space zoning with Mitigation Measure BIO-1.

Mitigation Measure BIO-3 has been incorporated to protect old growth oaks by requiring a tree removal plan prior to the issuance of grading permits and building permits to indicate any oak trees (OGO) removed larger than 24-inch dbh. If no OGOs are proposed to be removed, that information shall be indicated on the plot plan for any grading permit or building permit application. Fees shall be paid into the Oak Woodland Fund for each old growth oak tree removed or disturbed based on the following formula:

Payment of in-lieu fee for replanting = Number of OGOs X 10 trees to be replanted X \$200.00

The implementation of Mitigation Measures BIO-1 and BIO-3 would result in a less than significant impact on oak woodland habitat.

- f) The project site is not located within an area that is subject to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat

conservation plan. Additionally, the project has been reviewed for compliance with the Tuolumne County Wildlife Handbook, Tuolumne County Wildlife Habitat Maps, and the 2018 Tuolumne County General Plan. The project has been found to be consistent with these documents and plans. Therefore, there would be no impact.

### **Mitigation Measures:**

**BIO-1:** The property owner shall rezone the riparian and aquatic habitats to Open Space zoning as shown on the Open Space Exhibit Map in Figure 1 above. The Open Space zoning shall be approved by the Tuolumne County Board of Supervisors and shall be clearly shown on the final map.

**BIO-2:** For construction activities expected to occur during the nesting season of raptors (February 1 to August 31) and migratory birds, a pre-construction survey by a qualified biologist shall be conducted to determine if active nests are present on or within 500 feet of the project site where feasible. Areas that are inaccessible due to private property restrictions shall be surveyed using binoculars from the nearest vantage point. The survey shall be conducted by a qualified biologist no more than seven days prior to the onset of construction. If no active nests are identified during the pre-construction survey, no further mitigation is necessary. If construction activities begin prior to February 1, it is assumed that no birds will nest in the project site during active construction activities and no pre-construction surveys are required. If at any time during the nesting season construction stops for a period of two weeks or longer, pre-construction surveys shall be conducted prior to construction resuming.

If active nests are found on or within 500 feet of the project site, the applicant shall notify CDFW and explain any additional measures that a qualified biologist plans to implement to prevent or minimize disturbance to the nest while it is still active. Depending on the conditions specific to each nest, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned within the 500-foot buffer without impacting the breeding effort. Appropriate measures may include restricting construction activities within 500 feet of active raptor nests and having a qualified biologist with stop work authority monitor the nest for evidence that the behavior of the parents have changed during construction. Nests that are inaccessible due to private property restrictions shall be monitored using binoculars from the nearest vantage point. Appropriate measures would be implemented until the young have fledged or until a qualified biologist determines that the nest is no longer active. Construction activities may be halted at any time if, in the professional opinion of the biologist, construction activities are affecting the breeding effort.

**BIO-3:** In order to protect old growth oak trees on the project site (oak trees larger than 24 inches dbh), a tree removal plan prepared by a qualified consultant shall be submitted prior to issuance of grading permits or building permits indicating any oak trees that will be removed that are larger than 24 inches dbh as a result of construction and development of each lot. The tree plan shall be required prior to the issuance of grading permits or building permits on site. If no old growth oaks are proposed to be removed, that information shall be included on the grading permit or building permit submittal. If old growth oaks are to be removed, fees shall be submitted to mitigate for the removal of each heritage oak based on the following formula:

Payment of in-lieu fees for replanting = OGOs removed x 10 trees to be replanted x \$200.00

The fees shall be paid into the Oak Woodlands Conservation Fund. (CEQA, Section 15041, [Initial Study, "Biological Resources"])

### **Mitigation Monitoring:**

Mitigation Measures BIO-1 is required prior to approval of the Final Map. Mitigation BIO-2 is required prior to

ground disturbance or construction activities on site and would be verified prior to the issuance of a grading permit issued by the Department of Public Works or building permit issued by the Building and Safety Division. Mitigation Measure BIO-3 is required prior to the issuance of Grading Permits issued by the Engineering Division of the Department of Public Works and Building Permits issued by the Building and Safety Division of the Community Development Department and would be verified by LUNR staff. These measures will be verified by the Land Use and Natural Resources Division. A Notice of Action will be recorded to advise future owners of the required mitigation measures and the responsibility to comply with said measures.

## **CULTURAL RESOURCES:**

### **Issues and Supporting Information Sources**

	<i>Potentially Significant Impact</i>	<i>Less-than- Significant With Mitigation Incorporation</i>	<i>Less-than- Significant Impact</i>	<i>No Impact</i>
<b>Would the Proposed Project/Action:</b>				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Environmental Setting:**

A cultural resource study was prepared by Sierra Valley Cultural Planning in February 2017. The project site is located within the community of Columbia. Columbia was established during the California Gold Rush. The Solari family can be traced back to Pietro Solari, who immigrated from Italy in the 1850s or 1960s (Cultural Resource Assessment). By 1883, the Solari family moved to the town of Columbia, where they settled and opened a store (Cultural Resource Assessment).

The project site consists of modifications made in the Twentieth Century consisted of access roads, residential structures, and outbuildings. The Central Sierra Miwok settled in much of Tuolumne County are known to have lived in the area including the project site.

### **Regulatory Setting:**

State and Federal legislation requires the protection of historical and cultural resources. In 1971, the President's Executive Order No. 11593 required that all Federal agencies initiate procedures to preserve and maintain cultural resources by nomination and inclusion on the National Register of Historic Places.

In 1980, the Governor's Executive Order No. B-64-80 required that State agencies inventory all "significant historic and cultural sites, structures, and objects under their jurisdiction which are over 50 years of age and which may qualify for listing on the National Register of Historic Places." Likewise, Section 15064.5(b) of the CEQA Guidelines specifies that "projects that cause the physical demolition, destruction, relocation, or alteration of a historical resource or its immediate surroundings such that the significance of the historic resource would be materially impaired" shall be found to have a significant impact on the environment.

In September of 2014, the California Legislature passed Assembly Bill (AB) 52, which added provisions to the Public Resources Code (PRC) regarding the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze project impacts to "tribal cultural resources" separately from archaeological resources (PRC §21074; 21083.09). The Bill defines "tribal cultural resources" in a new section of the PRC §21074. AB 52 also requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC §21080.3.1, 21080.3.2, 21082.3).

Cultural resources include prehistoric resources, historic resources, and Native American resources. Pre-historic resources include resources that represent the remains of habitation prior to European settlement and historic resources include resources that represent the remains of habitation after European settlement. Native Americans arrived in Tuolumne County approximately 2,000 years ago. Their villages and areas of temporary settlement typically centralized around drainages, springs, and creeks. Historic resources in Tuolumne County mostly consist of uses and sites centered around gold mining, early timber industry, or historic farming and ranching.

## **Analysis:**

a, b, c) A cultural resource study was prepared by Sierra Valley Cultural Planning in February 2017. The records search with the Central California Information Center indicated that 6 previous cultural resources have been identified with ¼ mile of the project site. A pedestrian survey of the project site was conducted in June 2016. The survey identified 11 previously undocumented resources. These resources consist of four mining features, a spring box, Native American lithic scatter, three Native American milling features, a multi-component site with milling features and a spring box structures, and the Solari Ranch complex. The sites were identified as “Solari 1 through 11” in the cultural study.

The mining features and spring box structures were found to be ineligible for listing (Solari 1, 2, 3, 4, 7 and 11). The Solari Ranch complex (Solari 11) includes structures that have been moved since construction and features built in the 1970s, so those resources were found to be ineligible for listing. Therefore, these resources are not considered significant and not further mitigation is needed.

Resources Solari 5, 6, 8, 9, and 10 consist of Native American components. Resource number 5 consists of lithic scatter and flakes of types of chert. Resource number 6 is a bedrock milling feature that includes seven cups. Resource number 8 consists of three bedrock milling features and two historic spring boxes. Resource number 9 and Resource number 10 are bedrock milling features.

Resources 5, 6, 8, 9, and 10 are considered potentially eligible for listing and are considered potentially significant resources. The cultural resource study recommended placing these resources into O-1 (Open Space-1) zoning to avoid impacts to these resources. Mitigation Measure CUL-1 has been incorporated to require the placement of these resources into O-1 zoning. The rezoning to O-1 zoning shall be approved by the Tuolumne County Board of Supervisors and must be completed prior to approval of the final map. The O-1 zoning is required to be shown on the final map.

The study also recommended the addition of Mitigation Measures CUL-2 and CUL-3 to ensure protection of resources that may be present on site which were not identified during the survey. Mitigation Measures CUL-2 and CUL-3 have been incorporated in order to protect cultural resources that may be unearthed during the construction process, including the discovery of any human remains.

Formal consultation letters were sent via certified mail on September 23, 2020 to the Tuolumne Band of Me-Wuk and Chicken Ranch Rancheria Tribes, in accordance with Assembly Bill 52. The purpose of the letters is to allow the Tribes to request formal consultation on the proposed project to address any impacts to Tribal resources that may be impacted by the project. To date, no responses or requests for consultation have been received.

Incorporation of Mitigation Measures CUL-1 through CUL-3 will result in a less than significant impact to cultural resources.

## **Mitigation Measures:**

**CUL-1:** Prior to the approval of the Final Map, Open Space-1 zoning shall be established by the Tuolumne County Board of Supervisors around the Solari 5, 6, 8, 9, and 10 sites as identified by the study entitled “Cultural Resources Assessment 160.33-acre Solari Ranch (APN 032-120-40)10085 North Airport Road, Tuolumne County, California” prepared by Sierra Valley Cultural Planning in February 2017, as identified by the map on Page 17 of that report. The Open Space shall clearly be delineated on the Final Map.

**CUL-2:** If a cultural resource is discovered during the activities authorized by this Permit, the person in possession of the parcel for which the permit was issued and all persons conducting any activity authorized by this permit shall comply with the following provisions:

- A. The person discovering the cultural resource shall notify the Community Development Department by telephone within 4 hours of the discovery or the next working day if the department is closed.
- B. When the cultural resource is located outside the area of disturbance, the Community Development Department shall be allowed to photo document and record the resource and construction activities may continue during this process. On parcels of two or more gross acres, the area of disturbance includes building pads, septic areas, driveways, or utility lines, grading and vegetation removal, plus 300 feet.
- C. When the cultural resource is located within the area of disturbance, all activities that may impact the resource shall cease immediately upon discovery of the resource. All activity that does not affect the cultural resource as determined by the Community Development Department may continue. A qualified professional, as defined in Section 17.04.657 of the Tuolumne County Ordinance Code, such as an archaeologist or an historian, shall be allowed to conduct an evaluative survey to evaluate the significance of the cultural resource.
- D. When the cultural resource is determined to not be significant, the qualified professional or Community Development Department shall be allowed to photo document and record the resource. Construction activities may resume after authorization from the Community Development Department.
- E. When a resource is determined to be significant, or is determined to be eligible for listing, the resource shall be avoided with said resource having boundaries established around its perimeter by a qualified professional archaeologist or historian or a cultural resource management plan shall be prepared by a qualified professional to establish measures formulated and implemented in accordance with Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA) to address the effects of construction on the resource. Appropriate measures may include preserving the resource in place with Open Space, conservation easement, or capping the object. If avoidance is not possible, a qualified archaeologist shall prepare and implement a detailed treatment plan, which may consist of excavation of the site. The qualified professional shall be allowed to photo document and record the resource. Construction activities may resume after authorization from the Community Development Department. All further activity authorized by this permit shall comply with the cultural resources management plan.

**CUL-3:** In the event of discovery of human remains during construction activities, all work shall immediately cease within 50 feet of the discovery. The Tuolumne County Coroner's office shall be called within 24 hours of the find to investigate the discovery. If the coroner determines that the remains are of Native American origin, the Native American Heritage Commission and a qualified archaeologist shall be notified within 48 hours. The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native who would make recommendations to the County for the appropriate means of treating the human remains and any associated funerary objects.

#### **Mitigation Monitoring:**

Mitigation Measure CUL-1 is required to be met prior to the approval of the Final Map. Mitigation Measure CUL-2 and CUL-3 are required during construction activities on site. A Notice of Action will be recorded to advise future owners of the required mitigation measures and the responsibility to comply with said measures.

## **ENERGY:**

Issues and Supporting Information Sources	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact

### **Would the Proposed Project:**

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### **Environmental Setting:**

California relies on a regional power system composed of a diverse mix of natural gas, petroleum, renewable, hydroelectric, and nuclear generation resources. Natural gas provides one third of the electricity used in California, coming from both California-based power plants, as well as Pacific Northwest- and Southwest-based power plants outside the state. After natural gas generation, electricity in California is mostly generated by renewables (29 percent), large hydroelectric (15 percent), and nuclear (9 percent) (California Energy Commission [CEC] 2018a). The contribution of in- and out-of-state power plants depends on the precipitation that occurred in the previous year, the corresponding amount of hydroelectric power that is available, and other factors.

Electricity in Tuolumne County is provided by Pacific Gas and Electric (PG&E). There is no natural gas consumption in Tuolumne County. However, there is propane consumption for residential uses.

Homes built between 2000 and 2015 used 14 percent less energy per square foot than homes built in the 1980s, and 40 percent less energy per square foot than homes built before 1950. However, the increase size of newer homes has offset these efficiency improvements. Primary energy consumption in the residential sector total 21 quadrillion Btu in 2009 (the latest year the U.S. Energy Information Administration's [EIA's] *Residential Energy Consumption Survey* was completed), equal to 54 percent of consumption in the buildings sector and 22 percent of total primary energy consumption in the U.S. Energy consumption increased 24 percent from 1990 to 2009. However, because of projected improvements in building and appliance efficiency, the EIA 2017 Annual Energy Outlook forecast a 5-percent increase in energy consumption from 2016 to 2040 (EIA 2017).

On-road vehicles use about 90 percent of the petroleum consumed in California. Based on the most recently available information, in 2008, the California Department of Transportation (Caltrans) projected 41.5 million gallons of gasoline and diesel would be consumed in Tuolumne County in 2015, an increase of approximately 4.7 million gallons of fuel from the projected 2010 levels (Caltrans 2008).

Energy consumption on the project site would include energy consumed for the construction of single-family dwellings and accessory structures on site, mainly using electric-powered and gas-powered equipment and vehicle usage. Operational energy consumption would include electricity and propane for heating and cooling systems, interior and exterior lighting, and other residential uses. Operational energy consumption would also be associated with transportation-related uses to power cars and trucks for people living on the site after project build-out.

### **Regulatory Setting:**

Federal and state agencies regulate energy consumption through various policies, standards, and programs. At the local level, individual cities and counties establish policies in their general plans and climate action plans related to the energy efficiency of new development and land use planning and to the use of renewable energy sources.

## **Federal:**

### **Energy Policy and Conservation Act, and CAFE Standards**

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

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the EPA calculates a CAFE value for each manufacturer based on the city and highway fuel economy test results and vehicle sales. The CAFE values are a weighted harmonic average of the EPA city and highway fuel economy test results. Based on information generated under the CAFE program, the U.S. Department of Transportation is authorized to assess penalties for noncompliance. Under the Energy Independence and Security Act of 2007 (described below), the CAFE standards were revised for the first time in 30 years.

### **Energy Policy Act (1992 and 2005) and Energy Independence and Security Act of 2007**

The Energy Policy Act of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. The act includes several parts intended to build an inventory of alternative fuel vehicles in large, centrally fueled fleets in metropolitan areas. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

The Energy Independence and Security Act of 2007 increased the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel annually by 2022, which represents a nearly five-fold increase over current levels and reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent. By addressing renewable fuels and CAFE standards, the Energy Independence and Security Act of 2007 will build on progress made by the Energy Policy Act of 2005 in setting out a comprehensive national energy strategy for the 21st century.

## **State:**

### **State of California Energy Plan**

CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The current plan is the 1997 California Energy Plan. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies strategies such as aiding public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, and encouraging urban design that reduces vehicle miles traveled (VMT) and accommodates pedestrian and bicycle access.

### **Senate Bill 1078: California Renewables Portfolio Standard Program**

Senate Bill (SB) 1078 (Chapter 516, Statutes of 2002) establishes a renewables portfolio standard (RPS) for electricity supply. The RPS originally required retail sellers of electricity, including investor-owned utilities and community choice aggregators to provide 20 percent of their supply from renewable sources by 2017, but SB 1078 moved that date forward to require compliance by 2010, although the state did not meet the target. In addition, electricity providers subject to the RPS must increase their renewable share by at least 1 percent each year. As of 2016, the state sourced 34.8 percent of its electricity from certified renewable sources (CPUC 2018). The outcome of this legislation will affect regional transportation powered by electricity.



SB X1-2 of 2011 set a three-stage compliance period requiring all California utilities, including independently owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. The state met the 2016 target and is on track to meet the 2020 target.

#### Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources to be increased to 50 percent by December 31, 2030. This act also requires doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

#### Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan in partnership with CARB and in consultation with other state, federal, and local agencies. The plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. It assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

#### Executive Order S-06-06

Executive Order (EO) S-06-06, signed on April 25, 2006, establishes targets for the use and production of biofuels and biopower, and directs state agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The EO establishes the following target to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its biofuels within California by 2010, 40 percent by 2020, and 75 percent by 2050. The EO also calls for the state to meet a target for use of biomass electricity. The 2011 Bioenergy Action Plan identifies barriers and recommends actions to address them so that the state can meet its clean energy, waste reduction, and climate protection goals. The 2012 Bioenergy Action Plan updates the 2011 plan and provides a more detailed action plan to achieve the following goals:

- increase environmentally and economically sustainable energy production from organic waste;
- encourage development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable liquid fuels for transportation and fuel cell applications;
- create jobs and stimulate economic development, especially in rural regions of the state; and
- reduce fire danger, improve air and water quality, and reduce waste.

As of 2015, 3.2 percent of the total electricity system power in California was derived from biomass.

#### Senate Bill 375

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy or Alternative Planning Strategy, showing prescribed land use allocation in each MPO's Regional Transportation Plan. CARB, in consultation with the MPOs, is to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035. Implementation of SB 375 will have the co-benefit of reducing California's dependency of fossil fuels and making land use development and transportation systems more energy efficient.

The Tuolumne County Transportation Council (TCTC) serves as the federally designated rural transportation agency and the state-designated regional transportation planning agency for Tuolumne County. While the TCTC is required to prepare a Regional Transportation Plan, it is not required to prepare a Sustainable Communities Strategy, as it is not a federally designated MPO. However, the TCTC's *2016 Final Regional Transportation Plan* includes an optional Rural Sustainable Strategies chapter to help Tuolumne County comply with AB 32 and to reduce GHG emissions.

#### California Green Building Standards

California Code of Regulations, Title 24, Part 6, is California's Energy Efficiency Standards for Residential and Non-Residential Buildings. Title 24 Part 6 was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy-efficiency standards for residential and nonresidential buildings. In 2013, CEC updated Title 24 standards with more stringent requirements, effective July 1, 2014. All buildings for which an application for a building permit is submitted on or after July 1, 2014, must follow the 2013 standards. Energy-efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The CEC *Impact Analysis for California's 2013 Building Energy Efficiency Standards* estimates that the 2013 standards are 23.3 percent more efficient than the previous 2008 standards for residential construction and 21.8 percent more efficient for nonresidential construction. In 2016, CEC updated Title 24 standards again, effective January 1, 2017. CEC estimates that the 2016 standards are 28 percent more efficient than 2013 standards for residential construction (CEC n.d.) and are approximately 5 percent more efficient for nonresidential construction (CEC 2015).

The 2019 Title 24 Part 6 Building Energy Efficiency Standards were adopted by the CEC on May 9, 2018 and will take effect on January 1, 2020. The standards are designed to move the state closer to its zero net energy goals for new residential development. It does so by requiring all new residences to install enough renewable energy to offset all the site electricity needs of each residential unit (California Code of Regulations, Title 24, Part 6, Section 150.1(c)14). CEC estimates that the combination of mandatory on-site renewable energy and prescriptively required energy efficiency features will result in new residential construction that uses 53 percent less energy than the 2016 standards. Nonresidential buildings are anticipated to reduce energy consumption by 30 percent compared to the 2016 standards primarily through prescriptive requirements for high-efficacy lighting (CEC 2018b). The building efficiency standards are enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary in response to local climatologic, geologic, or topographic conditions, provided that these standards are demonstrated to be cost effective and exceed the energy performance required by Title 24 Part 6.

#### Assembly Bill 32, Climate Change Scoping Plan and Update

In December 2008, CARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 million metric tons of carbon dioxide—equivalent (MMT $\text{CO}_2\text{e}$ ) emissions, or approximately 21.7 percent from the state's projected 2020 emission level of 545 MMT $\text{CO}_2\text{e}$  under a business-as-usual scenario (this is a reduction of 47 MMT $\text{CO}_2\text{e}$ , or almost 10 percent, from 2008 emissions). In May 2014, CARB released and has since adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate progress that has been made between 2000 and 2012 (CARB 2014:4–5). According to the update, California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 (CARB 2014:ES-2). The update also reports the trends in GHG emissions from various emissions sectors (e.g., transportation, building energy, agriculture).

After releasing multiple versions of proposed updates in 2017, CARB adopted the final version titled *California's 2017 Climate Change Scoping Plan* (2017 Scoping Plan), which lays out the framework for achieving the 2030 reductions as established in more recent legislation (discussed below). The 2017 Scoping Plan identifies the GHG reductions needed by each emissions sector to achieve a statewide emissions level that is 40 percent below 1990 levels before 2030.

### Executive Order B-30-15

On April 20, 2015, Governor Edmund G. Brown Jr. signed EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's EO aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union which adopted the same target in October 2014. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32, discussed above). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming to below 2 degrees Celsius, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

### Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the state's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050. Achievement of these goals will have the co-benefit of reducing California's dependency of fossil fuels and making land use development and transportation systems more energy efficient.

### Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the state. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions than the statewide fleet in 2016 (CARB 2016).

### Local:

#### 2018 Tuolumne County General Plan:

The 2018 Tuolumne County General Plan provides a framework for addressing issues related to energy efficiency. The Community Development and Design, Housing, Transportation, Economic Development, Water, Air Quality, and Climate Change Elements contain goals and policies that would reduce energy consumption. Specific Goals, Policies, and implementation Programs related to energy that are applicable to the project are as follows:

**Implementation Program 18.A.a:** Include specific GHG emissions reduction measures in the CAP. Examples include, but are not limited to, the following:

- Require compliance with CALGreen Tier 1 Green Building standards and Tier 1 Building Energy Efficiency Standards for eligible alterations or additions to existing buildings;
- Require compliance with CALGreen Tier 1 Green Building standards and Tier 1 standards for all new construction, and phase in Zero Net Energy (ZNE) standards for new construction;
- Require new or replacement residential water heating systems to be electrically powered and/or alternatively fueled systems;

- Promote recycling to reduce waste and energy consumption;
- Refine protection guidelines for existing riparian lands to establish a no-net-loss goal;

**Policy 18.A.5:** Promote energy efficiency and alternative energy while reducing energy demand.

**Analysis:**

- a,b) The 2019 Title 24 Part 6 Building Energy Efficiency Standards were adopted by the California Electrical Code (CEC) on May 9, 2018 and took effect on January 1, 2020. The standards are designed to move the state closer to its zero net energy goals for new residential development. It does so by requiring all new residences to install enough renewable energy to offset all the site electricity needs of each residential unit. These standards would be required to be met by any new construction of single-family dwellings on the site. These standards are enforced by the Building and Safety Division of the CDD through plan check for the Building Permit process. The project has been reviewed for compliance with the 2018 Tuolumne County General Plan. Compliance with the Title 24 Part 6 Building Energy Efficiency Standards and other regulations as listed above in the Regulatory Section would result in a less than significant impact.

**Mitigation Measure:** None required.

**Mitigation Monitoring:** Not applicable.

## **GEOLOGY AND SOILS:**

### Issues and Supporting Information Sources

Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
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#### **Would the Proposed Project:**

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## **Environmental Setting:**

The purpose of this section is to disclose and analyze the potential impacts associated with the geology of the project site and regional vicinity, and to analyze issues such as the potential exposure of people and property to geologic hazards, landform alteration, and erosion.

Tuolumne County is located primarily within the Sierra Nevada geomorphic province, with an extremely small portion (less than 10 percent) of the western boundary within the Great Valley province. The Sierra is a tilted fault block nearly 400 miles long. Its east face is a high rugged multiple scarp, contrasting with the gentle western slope that disappears under the sediments of the Great Valley to the west. Deep river canyons are cut into the western slope. Their upper courses, especially in massive granites of the higher Sierra, have been modified by glacial activity, forming such scenic features as Yosemite Valley. The high crest in the Sierra culminates in Mt. Whitney with an elevation of 14,495 feet above sea level near the eastern scarp. The metamorphic bedrock contains gold-bearing veins in the northwest trending Mother Lode. The northern Sierra boundary is marked where bedrock disappears under the Cenozoic volcanic cover of the Cascade Range.

Tuolumne County is located in central California, which is a region known to have limited fault zones and seismic activity. There are four "capable" faults, which are faults with tectonic displacement within the last 35,000 years which could produce a quake, located within Tuolumne County: Negro Jack Point, Bowie Flat, Rawhide Flat West, and Rawhide Flat East. These faults are located primarily in the western and southwestern

portion of the County. Historically, earthquake activity in Tuolumne County has been substantially below the California State average.

In addition to the Tuolumne County General Plan and Ordinance Code, the project was evaluated using the Tuolumne County Multi-Jurisdiction Hazard Mitigation Plan, the USDA/CDF Cooperative Soil-Vegetation Survey of Tuolumne County, and the California Geological Survey's geotechnical maps.

The project site was mapped using the USDA Natural Resource Conservation Service (NRCS) soil survey maps. The project site contains the Deerflat-Millvilla complex, Sierra-Flanly complex (3 to 15% slopes), Beybek-Rock outcrop complex, Sierra-Orose complex, Sierra-Flanly complex (15 to 65% slopes), and Angelscreek-Pentz complex soil types. The Deer flat-Millvilla complex soils are found on slopes of 3-15%, the Sierra Flanly comes in two soil types found on slopes of 3-15% and slopes of 15-65%, the Beybek-Rock outcrop complex soils are found on 3-20% slopes, the Sierra-Orose complex soils are found on slopes 8-30%, and the Angelcreek-Pentz complex soils are found on 15-30% slopes. The site is comprised of approximately 27% of the Deerflat-Millvilla complex soils, 18% of the Sierra-Flanly complex, 3 to 15 percent slopes, approximately 12% of the Beybek-Rock outcrop soils, approximately 22% of the Sierra-Orose complex soils, approximately 13% of the Sierra-Flanly complex soils, 15 to 65 percent slopes, and approximately 8% of the Angelscreek-Pentz complex soils.

### Ground shaking

Earthquake activity within Tuolumne County is significantly below the California state average (Tuolumne County 2018). Over the past century, a total of five historical earthquakes within recorded magnitudes of 3.5 or greater have occurred. Further, there is an approximate 28 percent chance of a major earthquake within 50 kilometers of Tuolumne County within the next 50 years. The probability of a moderate earthquake occurring in the next 30 years is low. Only one major "active fault" is located in Tuolumne County, the New Melones fault, located approximately 5 miles west of the project site (DOC 2018). The fault transects the County, running roughly north to south along the western boundary, and is part of the Foothill fault system which runs along the west base of the Sierra Nevada mountain range. The estimated maximum capability for this fault is Magnitude 6.5 (Tuolumne County 2018).

The Alquist-Priolo Earthquake Fault Zoning Act was signed into California law on December 22, 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Act only applies to structures for human occupancy (houses, apartments, condominiums, etc.)

The California Building Code (CBC) identifies seismic factors that must be considered in structural design. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, while Chapter 18A regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction. Appendix J of the CBC regulates grading activities, including drainage and erosion control. The CBC also contains a provision that provides for a preliminary soil report or geotechnical report to be prepared to identify "...the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects" (CBC Chapter 18 Section 1803.1.1.1). Additionally, the state earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes.

### Landslides, Subsidence and Liquefaction

Liquefaction is a process whereby soil is temporarily transformed to a fluid form during intense and prolonged groundshaking. Areas most prone to liquefaction are those that are water saturated (e.g., where the water table is less than 30 feet below the surface) and consist of relatively uniform sands that are low to medium density. In

addition to necessary soil conditions, the ground acceleration and duration of the earthquake must be of sufficient energy to induce liquefaction. Due to the nature of the soils, groundwater conditions, and low seismicity in the County, the risk and danger of liquefaction and subsidence occurring within the County is considered to be minimal (Tuolumne County 2018).

Naturally occurring landslides do not typically occur in the County. Slopes disturbed by grading or development have failed, especially during periods of heavy rainfall, and have resulted in the destruction of County infrastructure. Within the County, there is a considerable amount of area where the topography can be considered steep to very steep. In the vast majority of this area, the underlying rock formation is very stable, and the soil found on these slopes is shallow and held in place by deep rooted vegetation. These slopes do not typically fail unless disturbed by grading or development (Tuolumne County 2018). Landslides are a primary geologic hazard and are influenced by four factors:

- Strength of rock and resistance to failure, which is a function of rock type (or geologic formation)
- Geologic structure or orientation of a surface along which slippage could occur
- Water (adds weight to a potentially unstable mass or influence strength of a potential failure surface)
- Topography (amount of slope in combination with gravitation forces)

### Expansive Soils

Clays are present in some soils both as a weathering product and as native sediments. Clays have the potential for expansion and contraction when they go through wet/dry cycles. Expansive soils (also known as shrink-swell soils) are soils that contain expansive clays that can absorb significant amounts of water into their crystalline structure. The presence of clay makes the soil prone to large changes in volume in response to changes in water content. The quantity and type of expansive clay minerals affects the potential for the soil to expand or contract. Wetting can occur naturally in a number of ways, (e.g., absorption from the air, rainfall, groundwater fluctuations, lawn watering and broken water or sewer lines). When an expansive soil becomes wet, water is absorbed, and it increases in volume, and as the soil dries it contracts and decreases in volume. This (often repeated) change in volume can produce enough force and stress on buildings and other structures to damage foundations and walls.

In hillside areas, as expansive soils expand and contract, gradual downslope creep may occur, eventually causing landslides (see below for more information on landslides and other forms of mass wasting). Clay soils also retain water and may act as lubricated slippage planes between other soil/rock strata, also producing landslides, often during earthquakes or by unusually moist conditions. The shrink-swell characteristics of soils can vary widely within short distances, depending on the relative amount and type of clay. Soils with clay content have been mapped throughout the County and may be susceptible to expansion (USDA 1964).

### Paleontological Resources

Based on geologic mapping, the majority of the County is not considered sensitive for paleontological resources. Paleozoic marine rocks occur in the western portion of the County and may contain fossils of marine invertebrates. Records of paleontological finds maintained by the University of California Museum of Paleontology state that there are 72 localities at which fossil remains have been found in Tuolumne County. These occur primarily in the Mehrten geologic formations (Tuolumne County 2018).

### Erosion:

Erosion is the process by which soil and rock at the earth's surface is gradually broken down and transported to a different location. Erosive processes include rainfall, surface runoff, glacial activity, wind abrasion, chemical dissolution, and gravity in the form of mass wasting (described below). Under normal conditions, these erosive processes, together with physical characteristics of the material being eroded, control the rate at which erosion occurs. Development activities can accelerate that rate, causing excessive erosion and a wide variety of

detrimental effects on the environment including sedimentation of waterways (see Section 3.10, “Hydrology and Water Quality”), slope instability, ground instability, loss of agricultural productivity through the removal of topsoil, or even desertification.

The potential for erosion increases as a function of slope steepness. Areas within the County where slopes exceed 30 percent are generally considered to have a high potential for erosion. The majority of development in Tuolumne County is not located on such terrain. Erosion problems in developed regions of the County are generally limited to areas where grading has resulted in steep slopes where deposits of fill have not stabilized, or where slope stabilization practices have not been employed following grading activities. Rain and runoff have also produced incidents of excessive erosion on burn scars that have not yet sufficiently revegetated. However, by comparison with other areas of the state, such as the coastal mountains, erosion has proven to be a modest hazard in Tuolumne County.

### **Analysis:**

- a i) The project site is not located within a delineated fault zone or located within a known liquefaction zone or seismic landslide zone as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map. The project site has been located on the Tuolumne County Geotechnical Interpretive Map for the USGS Sonora Minute Quadrangle. This map indicates that there are no faults located on the project site or within the vicinity of the project site. The nearest fault as identified on the Tuolumne County Geotechnical Interpretive Map is approximately 1.7± miles southwest of the project site. Therefore, there will be no impact.
- a ii-iii) The Environmental Impact Report for the 2018 Tuolumne County General Plan update indicates that there is a low potential for significant seismic activity within the County. There is a low potential for strong seismic ground shaking or seismic related ground failure, including liquefaction. Tuolumne County’s Geotechnical Maps show the approximate boundaries of various hazard and resource zones, such as fault rupture zones, erosive soil areas, steep slopes, and limestone deposits. The maps indicated a steep slope on the western portion of the project site. The maps did not indicate fault zones within the vicinity of the project site. The nearest fault location as indicated in the Geotechnical maps is located approximately 1.9± miles southwest of the project site. There would be a less than significant impact.
- a iv) The Technical Background Report for the 2018 General Plan indicate that the landslide susceptibility of the County is low. The project site contains the Deerflat-Millvilla complex, Sierra-Flanly complex (3 to 15% slopes), Beybek-Rock outcrop complex, Sierra-Orose complex, Sierra-Flanly complex (15 to 65% slopes), and Angelscreek-Pentz complex soil types. The NRCS data indicates that all of these soil types are well drained and have low frequency for flooding or ponding, which reduces the potential for landslide. As indicated above, water plays a factor in the likelihood of failure due to landslide.

Additionally, Mitigation Measure BIO-1 requires the applicant to protect areas from development with Open Space zoning. The applicant has proposed the steepest areas on site to be protected with Open Space zoning in which no development will occur. Mitigation Measure BIO-1 combined with the soil types found on the site would result in a less than significant impact with incorporation of mitigation.

- b,c) The project site contains the Deerflat-Millvilla complex, Sierra-Flanly complex (3 to 15% slopes), Beybek-Rock outcrop complex, Sierra-Orose complex, Sierra-Flanly complex (15 to 65% slopes), and Angelscreek-Pentz complex soil types. The NRCS data indicates that all of these soil types are well drained and have low frequency for flooding or ponding. The likelihood of landslides, lateral spreading, subsidence, liquefaction, or collapse of these soils is fairly low.

Although the erosive and soil failure hazards are fairly low, grading for the development of the single-family dwellings, driveways, and access roads have the potential to result in erosion or loss of the



topsoil. Any grading on the project site is subject to Chapter 12.20 of the TCOC and the project proponent would be required to secure a Grading Permit from the Engineering Division of the Department of Public Works. Grading Permit review from the Engineering Division will ensure consistency with Chapter 12.20 of the TCOC and ensure that the appropriate measures are taken to stabilize slope, control erosion, and protect exposed soils. Prior to the issuance of a Grading Permit by the Engineering Division of the Department of Public Works, the project proponent is required to submit an erosion control plan to be reviewed and approved which must be implemented during project construction activities. The project will also be conditioned to require that all soils that are disturbed by clearing or grading shall be reseeded or hydro mulched or otherwise stabilized as soon as possible. Emergency erosion control measures shall be utilized as requested by County officials.

The project proponent is required to submit a Notice of Intent (NOI) to the State Water Resources Control Board Water Permitting Unit to obtain coverage under the General Construction Activity Stormwater Permit for the disturbance of one acre or more. A Stormwater Pollution Prevention Plan (SWPPP) is required to be developed and submitted with the NOI. The SWPPP must be prepared by a qualified professional and includes Best Management Practices (BMPs) to minimize stormwater runoff, erosion, and sediment movement during construction activities.

Based on the above and the requirement of a preparation of a SWPPP with BMPs, the submittal of a NOI and the enforcement of the County's Grading Ordinance through the requirement and review of a grading permit, including implementation of an erosion control plan and stabilization of soils that are disturbed by grading, there will be a less than significant impact.

- d) The project site does not contain expansive soils, as defined in Table 18-1-B of the Uniform Building Code. Therefore, there is no impact.
- e) The project will be served by private sewage disposal systems. Prior to the construction of any new private sewage disposal system, the project proponent is required to secure a permit from the Environmental Health Division. The private sewage disposal system is required to meet all applicable provisions of Chapter 13.04 and 13.08 of the TCOC. These chapters of ordinance code meet all applicable State and Federal standards for the use of onsite sewage disposal systems. The project proponent would be required to submit a site and soil analysis prior to the securing of a septic permit from the Environmental Health Division to ensure that the system is adequately designed for the soil types that are present. Due to the parcel size, the site and soil analysis is not required prior to the approval of the Final Map. However, prior to issuance of a permit for a new septic system from the Environmental Health Division, the project proponent would be required to submit a site and soils analysis to ensure that there are adequate soils. Compliance with the TCOC and securing of a permit from the Environmental Health Division would ensure a less than significant impact.
- f) As previously described, paleontological resources within the county are not common. However, if present, these resources occur primarily in the Mehrten geologic formations. The Mehrten formation is a geologic formation dating back to the Neogene period, which is part of the Miocene and later Pliocene geologic epochs (Cenozoic Era). The generalized rock type identified within the project area is metasedimentary rock (Pz) (DOC 2018). This rock type is not associated within the Cenozoic Era, where resources from the Mehrten formation would be present. Construction activities associated with the project would involve site grading and excavation. Operation of the project would not result in any ground disturbance. Because the project site is not located within a geologic area where paleontological resources would likely be present, construction activities resulting from the project would not directly or indirectly result in destruction of a paleontological resource. Impacts would be less than significant.

**Mitigation Measures:** None required.

**Mitigation Monitoring:** Not applicable.

## **GREENHOUSE GAS EMISSIONS:**

### Issues and Supporting Information Sources

*Potentially  
Significant  
Impact*      *Less-than-  
Significant with  
Mitigation  
Incorporation*      *Less-than-  
Significant  
Impact*      *No  
Impact*

#### **Would the Proposed Project/Action:**

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?       | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

#### **Environmental Setting:**

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. GHGs are responsible for "trapping" solar radiation in the earth's atmosphere, a phenomenon known as the greenhouse effect. Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO<sub>2</sub>), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change 2014).

The different types of GHGs have varying global warming potentials (GWPs) (Table 3). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere. Because GHGs absorb different amounts of heat, a common reference gas, usually carbon dioxide, is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "CO<sub>2</sub> equivalent," and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a GWP of one. By contrast, methane (CH<sub>4</sub>) has a GWP of 21, meaning its global warming effect is 21 times greater than carbon dioxide on a molecule per molecule basis.

<b>Table 3</b>	
<b>Global Warming Potentials (GWPs)</b>	
<b>Gas</b>	<b>Global Warming Potential</b>
Carbon Dioxide	1
Methane	21
Nitrous Oxide	310
HFC-23	11,700
HFC-134a	1,300
HFC-152a	140
PFC: Tetrafluoromethane (CF <sub>4</sub> )	6,500
PFC: Hexafluoroethane (C <sub>2</sub> F <sub>6</sub> )	9,200
Sulfur Hexafluoride (SF <sub>6</sub> )	23,900
Source: <a href="http://epa.gov/climatechange/emissions/downloads09/Introduction.pdf">http://epa.gov/climatechange/emissions/downloads09/Introduction.pdf</a>	

As noted above, the earth needs a certain amount of greenhouse gases in order to maintain a livable temperature. However, it is believed by many that global climate change may occur as a result of excess amounts of GHG, which, in turn, may result in significant adverse effects to the environment that will be experienced worldwide. The effects may include the melting of polar ice caps and rising sea levels, increased flooding in wet areas, droughts in arid areas, harsher storms, problems with agriculture, and the extinction of

some animal species. Regardless of whether the rise in GHG is caused by natural cyclic events or not, it is widely believed production of additional GHG should be reduced in order to maintain a “healthy” level of GHG in the atmosphere.

### **Regulatory Setting:**

#### **State Legislation**

GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. Executive Order B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015:3).

California’s 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and “substantially advance toward our 2050 climate goals” (CARB 2017:1, 3, 5, 20, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste).

#### **Tuolumne County Regional Blueprint Greenhouse Gas Study**

In 2012, the Tuolumne County Transportation Council (TCTC) conducted a regional blueprint planning effort, which presented the results of a countywide (including incorporated and unincorporated areas) GHG emissions inventory, which evaluated existing (2010) GHG emissions, and projected (2020, 2030, and 2040) emissions for three growth scenarios. It also identified policies and measures Tuolumne County and land use project applicants can implement to reduce GHG emissions consistent with AB 32 and prepare for the potential impacts of climate change. In 2010, Tuolumne County emitted approximately 782,846 metric tons of CO<sub>2</sub> equivalent GHG emissions (MTCO<sub>2</sub>e) as a result of activities and operations that took place within the transportation, residential (energy consumption), nonresidential (energy consumption), off-road vehicles and equipment, agriculture and forestry, wastewater, and solid waste sectors. This equates to 9.8 MTCO<sub>2</sub>e per resident and employee in Tuolumne County’s service population (service population is defined as the total County resident population + people employed in the County).

The study identified a countywide target to reduce Tuolumne County’s GHG emissions 15 percent below 2010 levels by 2020 (equivalent to 665,419 MTCO<sub>2</sub>e) and policies that can be implemented to meet the target. The policies are organized into six categories: (1) Energy, (2) Transportation, (3) Resource Conservation, (4) Off-Road Vehicles and Equipment, (5) New Development, and (6) Adaptation. The study also identified a project-level threshold of 4.6 MTCO<sub>2</sub>e per service population per year that can be applied evenly to future land development applications countywide to ensure that new development reduces its share of emissions consistent with AB 32 and the countywide reduction target (TCTC 2012). The Tuolumne County Regional Blueprint Greenhouse Gas Study and associated project level thresholds were adopted by the County Board of Supervisors in January 2012.

### **Analysis:**

- a,b) To assist project applicants with determining whether a proposed project’s GHG emissions are consistent with AB 32 and the countywide reduction target, the Blueprint study provides two sets of screening criteria. If a project meets either set of screening criteria, then the lead agency or project applicant would not need to perform an assessment of the project’s GHG emissions.

If a proposed project *either* is equal to or less than the project size screening criteria in Table 4 of the GHG study, *or* incorporates *all* of the measures identified in Table 5 (P-1 through P-4) below, then a project specific assessment is not required.

<b>Table 4: Project Screening Criteria by Project Size and Type</b>	
Single Family	4 parcels
Apartment, Condo, Townhouse	8 dwelling units
Commercial/Retail	2,000 square feet
Industrial	5,000 square feet
These screening criteria represent the maximum operational size of a project by land use type. Source: Table 5.8 of the Tuolumne County Greenhouse Gas Study	

<b>Table 5: Project Screening Criteria by Project Features</b>
<b>P-1:</b> Project exceeds the California Energy Code requirements by 15 percent, based on the 2008 Energy Efficiency Standards requirements, through the installation of energy efficient design, lighting, equipment, appliances, or solar photovoltaic panels that provide 15 percent or more of the project's energy needs.
<b>P-2:</b> Project does not include fuel oil as a heating source.
<b>P-3:</b> Project provides dedicated and accessible recycling and green waste bins with instructions/education program explaining how to use the bins, what can go into each bin, and the importance of recycling.
<b>P-4:</b> Project (non-residential only) provides designated parking for any combination of low-emitting, fuel-efficient and carpool/vanpools vehicles at 10 percent of the total spaces, consistent with the 2010 California Green Building Standards Code Tier 1 measure (Table A5.106.5.1.1).
A project using this screening criteria table must incorporate all project features (P-1 through P-3 for residential, and P-1 through P-4 for non-residential) listed above. Source: Table 5.9 of the Tuolumne County Greenhouse Gas Study

The project meets the criteria as indicated in Table 4 above because the project proposes to split a parcel into four parcels to be utilized for agricultural and single-family purposes. Therefore, the project does not need to implement Mitigation Measures as indicated in Table 5 or require a site-specific Greenhouse Gas analysis. Because the project is below the threshold of requiring the implementation of the measures in Table 5 above, it is considered a less than significant impact for both construction and operational greenhouse gas emissions.

**Mitigation Measures:** None Required.

**Mitigation Monitoring:** Not Applicable.

## **HAZARDS AND HAZARDOUS MATERIALS:**

Issues and Supporting Information Sources	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
<b>Would the Proposed Project/Action:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### **Environmental Setting:**

Hazardous substances and wastes that are likely to be generated from the project would include hydraulic fluids and solvents used in the construction and operations of new residences. Hazardous materials and waste would also be generated by household uses after occupancy of the residences, which would include oils, used paint, pesticides, cleaning products and other chemicals that are commonly used. All hazardous substances and wastes are highly regulated by federal, state, and local regulations regarding the use, storage, transportation, handling, processing, and disposal. All hazardous substances and waste are required to be stored, transported, handles, processed, and disposed of in accordance with these regulations.

To address compliance of these regulations in the home, Tuolumne County adopted the Household Hazardous Waste Element of the Tuolumne County Integrated Waste Management Plan. This plan aims to reduce the amount of household hazardous waste generated within Tuolumne County through reuse and recycling, to divert household hazardous waste from landfills, to promote alternatives to toxic household products, and to educate the public regarding household hazardous waste management. Household hazardous waste is collected at the Cal Sierra Transfer Station in East Sonora and the Groveland Transfer Station in Groveland. Tuolumne County also holds collection events for household hazardous waste which is organized by the Solid Waste Division of the Department of Public Works.

The project site is located within the Columbia Elementary School district. Columbia Elementary, which is the closest school to the site, is located 0.85± aerial miles and 2.4± road miles east of the project site. There are no schools located within 0.25 mile of the project site.

The California Department of Toxic Substance Control (DTSC) maintains a list of cleanup sites and hazardous

waste permitted facilities on its EnviroStor database. The State Water Resources Control Board regulates spills, leaks, investigation, and cleanup sites and maintains an online GeoTracker database. The GeoTracker database tracks regulatory data about leaking underground storage tank (LUST) sites, fuel pipelines, and public drinking water supplies. These databases were consulted for the project site.

There are two airports located within Tuolumne County. One is located within the community of Columbia, which is adjacent to the eastern boundary of the project site. The other airport is located in the community of Groveland, approximately 17.5± aerial miles southeast of the project site. Parcels that are subject to the Tuolumne County Airport Compatibility Plan are designated with the Airport Overlay (-AIR) General Plan land use designation the :AIR (Airport Combining) zoning district. The project site is located within two miles of the Columbia Airport and is located within an area that is subject to the Tuolumne County Airport Land Use Compatibility Plan.

The basic function of the Tuolumne County Airport Land Use Compatibility Plan is to promote compatibility between the airports in Tuolumne County and the land uses which surround them. As adopted by the Tuolumne County Airport Land Use Commission, the plan serves as a tool for use by the Commission in fulfilling its duty to review airport and adjacent land development proposals. Additionally, the plan sets compatibility criteria applicable to local agencies in their preparation or amendment of land use plans and ordinances and to landowners in their design of new development

Information on emergency response plan and evacuation plan is contained in the Natural Hazards Element of the 2018 Tuolumne County General Plan and the Tuolumne County Multi-Jurisdiction Hazard Mitigation Plan. Tuolumne County does not have a static emergency plan or evacuation plan due to the dynamic nature of emergencies. In the event of an emergency, the Tuolumne County Sheriff Office is the responsible entity for declaring and directing evacuations in the case of emergencies. The Sheriff's Department will inform members of the public via the Everbridge Emergency Notification System, local media, and door-to-door when feasible.

The project site is located within a State Responsibility Area (SRA) and is rated as high and very high fire hazard severity zone. This rating is based on factors of slope, vegetation, and annual summer weather patterns. These zones, referred to as Fire Hazard Severity Zones (FHSZ), provide the basis for application of various mitigation strategies to reduce risks to buildings associated with wildland fires. The zones also relate to the requirements for building codes designed to reduce the ignition potential to buildings in the wildland-urban interface zone.

## **Regulatory Setting:**

### **Federal:**

#### **Toxic Substances Control Act**

The 1976 Toxic Substances Control Act regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. The Model Accreditation Plan, adopted under Title II of the Act, requires that all persons who inspect for asbestos-containing material (ACM) or design or conduct response actions with respect to friable asbestos obtain accreditation by completing a prescribed training course and passing an exam. Section 403 of the Toxic Substances Control Act establishes standards for LBP hazards in paint, dust, and soil.

#### **Resource Conservation and Recovery Act**

RCRA (42 U.S. Code [USC] 6901 et seq.) is the law under which EPA regulates hazardous waste from the time the waste is generated until its final disposal ("cradle to grave"). EPA has authorized DTSC to enforce hazardous waste laws and regulations in California. Under RCRA, DTSC has the authority to implement permitting, inspection, compliance, and corrective action programs to ensure that people who manage hazardous waste follow state and federal requirements. Generators must ensure that their wastes are disposed of properly, and legal requirements dictate the disposal requirements for many waste streams (e.g., banning

many types of hazardous wastes from landfills).

#### Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499; USC Title 42, Chapter 116), also known as SARA Title III or the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986, imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.

EPCRA requires states and local emergency planning groups to develop community emergency response plans for protection from a list of extremely hazardous substances (40 CFR 355 Appendix A). In California, EPCRA is implemented through the Cal ARP program.

#### Hazardous Materials Transportation

DOT regulates transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The federal hazardous materials transportation law, 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act 49 USC 1801 et seq.) is the basic statute regulating transport of hazardous materials in the United States. Hazardous materials regulations are enforced by the Federal Highway Administration, the Federal Railroad Administration, and the Federal Aviation Administration.

#### Comprehensive Environmental Response, Compensation, and Liability Act

Brownfield sites are areas with actual or perceived contamination and that may have potential for redevelopment or reuse. Brownfields are often former industrial facilities that were once the source of jobs and economic benefits to the community but lie abandoned due to fears about contamination and potential liability. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over 5 years, \$1.6 billion was collected and the tax went into a fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA was amended in January of 2002 with passage of the Small Business Liability Relief and Brownfields Revitalization Act. This Act provides some relief for small businesses from liability under CERCLA. It authorizes \$200 million per fiscal year through 2006 to provide financial assistance for brownfield revitalization. CERCLA also facilitated a revision of the National Contingency Plan, which provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The plan also established the generation of EPA's National Priorities List, a list of all the sites with known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. According to the National Priorities List database, there are no Superfund sites within Tuolumne County (EPA 2018).

#### National Emissions Standards for Hazardous Air Pollutants

The asbestos regulations under NESHAP control work practices during the demolition and renovation of institutional, commercial, or industrial structures. Following identification of friable asbestos, OSHA requires that asbestos trained and certified abatement personnel perform asbestos abatement and all ACM removed from on-site structures shall be hauled to a licensed receiving facility and disposed of under proper manifest by a transportation company certified to handle asbestos.

#### Clean Water Act

The U.S. Environmental Protection Agency (EPA) is the federal agency primarily responsible for water quality management. The CWA establishes the basic structure for regulating discharges of pollutants into "waters of the United States." The Act specifies a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Some of these tools include:

Section 311 details the Spill Prevention and Countermeasure Control (SPCC) rule, which requires facilities to prepare and maintain a SPCC plan. A facility falls under federal jurisdiction and the SPCC rule if it has an

aggregate aboveground oil storage capacity greater than 1,320 U.S. gallons or a completely buried storage capacity greater than 42,000 U.S. gallons and there is a reasonable expectation of an oil discharge into or upon navigable waters of the U.S. or adjoining shorelines. A SPCC plan describes oil handling operations, spill prevention practices, discharge or drainage controls, and the personnel, equipment, and resources at a facility that are used to prevent oil spills from reaching navigable waters or adjoining shorelines.

### **State:**

#### **California Accidental Release Prevention Program**

Cal ARP (CCR Title 19, Division 2, Chapter 4.5) covers certain businesses that store or handle more than a specified volume of regulated substances at their facilities. The Cal ARP program regulations became effective on January 1, 1997, and include the provisions of the federal Accidental Release Prevention program (Title 40, CFR Part 68), with certain additions specific to the state pursuant to Health and Safety Code Section 25531 et seq. The list of regulated substances is found in 19 CCR Section 2770.5 of the Cal ARP program regulations. Businesses that use a regulated substance above the noted threshold quantity must implement an accidental release prevention program, and some may be required to complete RMPs. An RMP is a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. The purpose of an RMP is to decrease the risk of an off-site release of a regulated substance that might harm the surrounding environment and community. An RMP includes the following components: safety information, hazard review, operating procedures, training, maintenance, compliance audits, and incident investigation. The RMP must consider the proximity to sensitive populations located in schools, residential areas, general acute care hospitals, long-term health care facilities, and child day-care facilities, as well as external events such as seismic activity.

#### **California Government Code Section 65962.5**

California Government Code Section 65962.5 requires DTSC to compile and maintain lists of potentially contaminated sites located throughout the State of California. This "Cortese List" includes hazardous waste and substance sites from DTSC's database, LUST sites from the SWRCB's database, solid waste disposal sites with waste constituents above hazardous waste levels outside of the waste management unit, Cease and Desist Orders and Cleanup and Abatement Orders concerning hazardous wastes, and hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

There are no sites in unincorporated Tuolumne County on DTSC's database of hazardous waste and substance sites, and there are no solid waste disposal sites in the County with waste constituents above hazardous waste levels outside of the waste management unit. There are six Cease and Desist Orders and Cleanup and Abatement Orders in the unincorporated County area, but none are apparently concerning hazardous waste. As described above, there are several records of LUST sites in the County (DTSC 2018).

#### **Hazardous Waste Control Act**

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act, Health and Safety Code Section 25100 et seq. and Title 26 of the CCR, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

#### **Hazardous Materials Release Response Plans and Inventory Law**

The Hazardous Materials Release Response Plans and Inventory Law, Health and Safety Code Section 25500 et seq., aims to minimize the potential for accidents involving hazardous materials and to facilitate an appropriate response to possible hazardous materials emergencies. The law requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies, to illustrate on a diagram where the materials are stored on site, to prepare an emergency response plan, and to train employees to use the materials safely.



### Transport of Hazardous Materials and Hazardous Materials Emergency Response Plan

The State of California has adopted DOT regulations for the movement of hazardous materials originating within the state and passing through the state. State regulations are contained in Title 26 of the CCR. State agencies with primary responsibility for enforcing state regulations and responding to hazardous materials transportation emergencies are the CHP and Caltrans. Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

The State of California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous materials incidents is one part of the plan. The plan is managed by the California Office of Emergency Services, which coordinates the responses of other agencies in the area.

### Worker and Workplace Hazardous Materials Safety

Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA obligates many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers are informed of the hazards associated with the materials they handle. For example, manufacturers are to appropriately label containers, material safety data sheets are to be available in the workplace, and employers are to properly train workers.

### California State Aeronautics Act

At the state level, Caltrans's Division of Aeronautics administers Federal Aviation Administration regulations. The division issues permits for hospital heliports and public-use airports, reviews potential and future school sites proposed within 2 miles of an airport and authorizes helicopter landing sites at or near schools. In addition, it administers noise regulation and land use planning laws, which regulate the operational activities and provides for the integration of aviation planning on a regional basis.

### CAL FIRE Regulations

Title 14 of the CCR establishes regulations for CAL FIRE in areas where CAL FIRE is responsible for wildfire protection. These regulations constitute the basic wildland fire protection standards of the California Board of Forestry and Fire Protection. They have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in state recreation areas. Additionally, Title 14 sets forth the minimum standards for emergency access, fuel modification, setback, signage, and water supply.

### Emergency Services Act

Under the Emergency Services Act, Government Code Section 8550 et seq., the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an important part of the plan, which is administered by the California Office of Emergency Services. The office coordinates the responses of other agencies, including EPA, the CHP, regional water quality control boards, air quality management districts, and county disaster response offices.

### International Building Code

In January of 2008, California officially switched from the Uniform Building Code to the International Building Code. The International Building Code specifies construction standards to be used in urban interface and wildland areas where there is an elevated threat of fire.

### Government Code Section 66474.02

Before approving a tentative map (or a parcel map where a tentative map is not required) for an area located in a State Responsibility Area or a very high fire hazard severity zone, the County Board of Supervisors must find that: the design and location of each lot in the subdivision, and the subdivision as a whole, are consistent with any applicable regulations adopted by CAL FIRE pursuant to Public Resources Code Sections 4290 and 4291; structural fire protection and suppression services will be provided to the subdivision by a county, city, special

district, or other entity organized solely to provide fire protection services, or CAL FIRE; and ingress and egress meets the road standards for fire equipment access adopted pursuant to Public Resources Code Section 4290 and any applicable local ordinance.

#### 2010 Strategic Fire Plan for California

The 2010 Strategic California Fire Plan is the state's road map for reducing the risk of wildfire. By emphasizing fire prevention, the Fire Plan seeks to reduce firefighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health.

#### **Local:**

##### Certified Unified Program Agency

Pursuant to Senate Bill 1082 (1993), the State of California adopted regulations to consolidate six hazardous materials management programs under a single, local agency, known as the Certified Unified Program Agency. In addition to conducting annual facility inspections, the Hazardous Materials Program is involved with hazardous materials emergency response, investigation of the illegal disposal of hazardous waste, public complaints, and storm water illicit discharge inspections. In January 1997, the Tuolumne County Environmental Health Division was designated as the Certified Unified Program Agency by the Secretary of the California Environmental Protection Agency for Tuolumne County. Accordingly, it is the Environmental Health Division's responsibility to prevent public health hazards in the community and to ensure the safety of water and food. The Environmental Health Division coordinates activities with federal, state, and regional agencies when planning programs that deal with the control of toxic materials, housing conditions, nuisance complaints, protection of food and water supply, public bathing areas, and sewage and solid waste.

##### Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan

Implementation of the *Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan* (HMP) (2018) is a coordinated effort between Tuolumne County, the City of Sonora, the Tuolumne Utilities District, the Sonora Union High School District, the Groveland Community Services District, Twain Harte Community Services District, Mi-Wuk Sugar Pine Fire Protection District, Belleview Elementary School District, Big Oak Flat-Groveland Unified School District, Jamestown Sanitary District, Columbia Fire Protection District, Columbia Union School District, Curtis Creek School District, Jamestown Elementary School District, Sonora Elementary School District, Summerville Elementary School District, Summerville Union High School District, Twain Harte Long Barn School District, and the Tuolumne Band of Me-Wuk Indians to effectively deal with natural catastrophes that affect the County. The HMP addresses risks associated with numerous hazards, including wildfire, earthquake, flooding, sinkholes, and extreme weather.

##### Tuolumne County Emergency Operations Plan

The Tuolumne County Emergency Operations Plan delineates the County's procedures and policies in response to a significant disaster, including extreme weather, flood or dam failure, earthquakes, hazardous materials, terrorism or civil disturbance, transportation accidents, and wildland fires.

##### County 4290 In Lieu Regulations

California Public Resources Code Section 4290 requires local jurisdictions in California to adopt General Plan Safety elements that meet Section 4290 standards or, in lieu of this requirement, local jurisdictions must adopt local fire safe ordinances addressing issues including emergency access, signing and building numbering, private water supply reserves for emergency fire use, and vegetation modification. The County currently has local fire safe ordinances in place in Titles 11, 15, and 16 of the Tuolumne County Ordinance Code. The California Board of Forestry and Fire Protection certified the County's fire safe ordinances in 2016.

##### 2018 Tuolumne County General Plan

The 2018 General Plan contains goals, policies, and implementation programs related to wildland fires, emergency services, and hazardous materials within the Safety Element and the Public Safety Element. These are contained within Chapters 9 and 17 of the 2018 General Plan.

## **Analysis:**

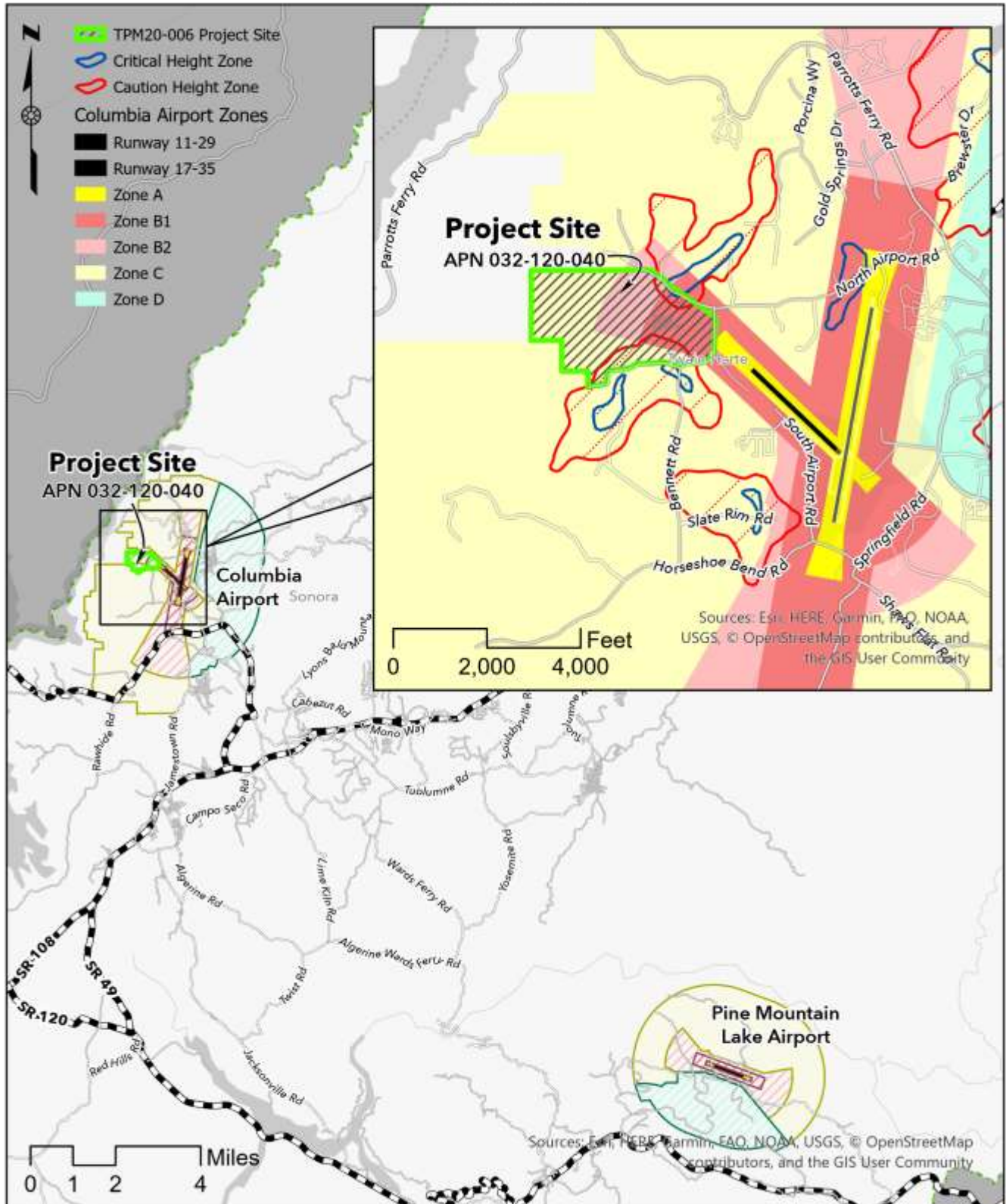
- a) Construction activities would involve the use of hazardous materials such as fuels, lubricants, and solvents typically associated with construction equipment and vehicles. These materials are commonly used during construction and are not acutely hazardous. The federal Occupational Safety and Health Administration (OSHA) is the agency responsible for assuring worker safety in the handling and use of chemicals identified in the Occupational Safety and Health Act of 1970 (Public Law 91-596, 9 USC 651 et seq.). OSHA has adopted numerous regulations pertaining to worker safety, contained in CFR Title 29. These regulations set standards for safe workplaces and work practices, including standards relating to the handling of hazardous materials and those required for construction activities such as excavation and trenching. Any materials used during construction activities would be handled in accordance with applicable laws, regulations, and protocols related to protect worker, user, and public safety. Operation of the project would involve residential activities, the operation of which would not involve the use, emission, or release of hazardous wastes or materials (beyond small amounts of common household products such as fuels, solvents, and cleaners). Implementation Program 9.I.d of the 2018 Tuolumne County General Plan states for the Tuolumne County Environmental Health Division and Tuolumne County Fire Department to review applications for discretionary projects for compliance with the latest adopted regulations for safety and environmental protection. Both divisions reviewed the project application and provided comments. Compliance with applicable laws, regulations, and protocols and the 2018 General Plan would result in impacts being less than significant.
- b) Reasonably foreseeable upset and accident conditions could include small spills or leaks associated with the use of construction equipment and vehicles, as described in item (a). Any materials utilized during construction activities would be handled in accordance with applicable laws, regulations, and protocols, and operation of the project would not result in the creation of any hazards to the public. As discussed under item (a), operation of the project would not involve the use of or result in the release of hazardous materials. Impacts would be less than significant.
- c) The project site is not located within 0.25 mile of an existing or proposed school. The closest school to the project site is Columbia Elementary, which is located 0.85± aerial miles and 2.4± road miles east of the project site. There are no new schools currently proposed within Tuolumne County. Therefore, there is no impact.
- d) A review of the Department of Toxic Substances Control (DTSC) database, *EnviroStor*, which includes lists of hazardous materials sites compiled pursuant to California Government Code Section 65962.5, did not identify any sites on or adjacent to the project site that have used, stored, disposed of, or released hazardous materials. The nearest cleanup site indicated on the database is over 1 mile from the project site. Therefore, there will be no impact.
- e) The project site is located within an area that is subject to the Tuolumne County Airport Land Use Compatibility Plan, as indicated by the :AIR combining zoning and -AIR General Plan Overlay. The Columbia Airport is located adjacent to the eastern boundary of the project site (Figure 2). The purpose of the :AIR Combining district is to:
  - A) Protect public health, safety and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses; and
  - B) To implement the policies of the Tuolumne County airport land use compatibility plan adopted January 22, 2003, as may be amended from time to time; and
  - C) To inform property owners and prospective purchasers of property within areas around airports of the proximity of the airport and aircraft use associated with the airport and that land development must comply with the Tuolumne County airport land use compatibility plan in

addition to development regulations contained in the Tuolumne County General Plan and this code.

Every parcel located within an :AIR zone includes a deed notice to inform future property owners of the limitations on the parcel and proximity to the airport. The notice shall disclose airport proximity conditions which may exist on any specific parcel at present or in the future. The notice shall also inform property owners and potential purchasers that the property is subject to land use measures contained in the Tuolumne County airport land use compatibility plan that may affect future development and the permissible height of vegetation on the property. The deed notice is required to be filed pursuant to Policy 2.4.4.2 of the Tuolumne County airport land use compatibility plan. The project will be conditioned to ensure compliance with the requirement of a deed notice.

The project site is located within Compatibility Zones A, B1, B2, and C associated with the Columbia Airport. The project site is located within the Height Restricted Zone and the Critical Height Zone associated with the Columbia Airport. Figure 3 below shows the compatibility criteria and density restrictions for each compatibility Zone. The proposed parcels would comply with the minimum size requirements and density restrictions for each airport zone as indicated in Figure 3. The project would not introduce any new uses which are not compatible with the criteria indicated in Figure 3.

**Figure 2: Airport Compatibility Zone Map  
TPM20-006**



**Figure 3: Airport Compatibility Zone Criteria**

Zone	Location	Maximum Densities		Additional Criteria	
		Residential (du/ac) <sup>1</sup>	Other Uses (people/a c) <sup>2</sup>	Prohibited Uses	Other Development Conditions
<b>A</b>	Runway Protection Zone or within Building Restriction Line	0	10	<ul style="list-style-type: none"> <li>* All structures except ones required by aeronautical function</li> <li>* Assemblages of people</li> <li>* Objects exceeding FAR Part 77 height limits</li> <li>* Aboveground bulk storage of hazardous materials</li> <li>* Hazards to flight <sup>4</sup></li> </ul>	*Deed notice recordation <sup>3</sup>
<b>B1</b>	Approach Departure Zone and Adjacent to Runway	0.1 (10-acre parcel)	25	<ul style="list-style-type: none"> <li>* Children's schools, day care centers, libraries</li> <li>* Hospitals, nursing homes</li> </ul>	<ul style="list-style-type: none"> <li>* Locate structures away from extended runway centerline</li> <li>* Additional NLR required for some uses <sup>6</sup></li> </ul>
<b>B2</b>	Extended Approach/Departure Zone	0.33 (3-acre parcel)	50	<ul style="list-style-type: none"> <li>* Highly noise-sensitive uses (e.g., outdoor theaters)</li> <li>* Aboveground bulk storage of hazardous materials <sup>5</sup></li> <li>* Hazards to flight <sup>4</sup></li> </ul>	<ul style="list-style-type: none"> <li>* Airspace review required for all objects (B1 zone)</li> <li>* Deed notice recordations <sup>3</sup></li> </ul>
<b>C</b>	Common Traffic Pattern	0.33 (3-acre parcel)	75	<ul style="list-style-type: none"> <li>* Children's schools, day care centers, libraries</li> <li>* Hospitals, nursing homes</li> <li>* Hazards to flight <sup>4</sup></li> </ul>	* Deed notice recordations <sup>3</sup>
<b>D</b>	Other Airport Environs	No Limit	No Limit	* Hazards to flight <sup>4</sup>	* Deed notice recordations <sup>3</sup>
	Critical Height Zone Overlay <sup>7</sup>	Same as Underlying Compatibility Zone		Tall objects on high terrain <sup>8</sup>	* Deed notice recordations <sup>3</sup>
	Height Caution Zone Overlay <sup>7</sup>	Same as Underlying Compatibility Zone		Same as Underlying Compatibility Zone	<ul style="list-style-type: none"> <li>* Airspace review required for objects taller than 50 ft. AGL <sup>9</sup></li> <li>* Deed notice recordations<sup>3</sup></li> </ul>

**Table 2A-Primary Compatibility Criteria**

2-18

Any future building permits on the site would require an airport review prior to the issuance of the building permit. Buildings permits located within Zone A or B1 or within a Critical Height Zone would require review from the Tuolumne County Airport Land Use Commission (ALUC) pursuant to the Airport Land Use Compatibility Plan. The ALUC will review the permit for consistency with the Compatibility Plan, including height, density regulations in each zone, and noise regulations. Any other building permits on site not meeting these criteria would involve an in-house ALUC Secretary's review, who may refer the permit to the ALUC.

The application for Tentative Parcel Map T20-006 was considered by the ALUC on June 4, 2020. The ALUC recommended approval of the project, with the conditions below added. These conditions have been added to ensure consistency with the Compatibility Plan and ensure safety for air traffic and residents of the project site. These conditions will be made conditions of the map.

1. Prior to the approval of the Final Map, all on-site structures which extend into the conical zone shall be removed or relocated.
2. No new structure constructed or new vegetation, such as trees, located on the project site shall exceed a height of 40'. The height of a structure includes any antenna, chimney, or other attachments.
3. Any new structure, development, or use on the project site shall be constructed, painted, designed, or operated in such a way as to avoid:
  - a. Glare or distracting lights which could be mistaken for airport lights;
  - b. Sources of dust, steam, or smoke which may impair pilot visibility;
  - c. Sources of electrical interference with aircraft communications or navigation; and
  - d. Any use which may attract large flocks of birds.
4. File a *Notice of Proposed Construction or Alteration* (Form 7460-1) with the Federal Aviation Administration (FAA) in accordance with 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718, at least forty five (45) days prior to the start of construction of any new structures on the project site, if necessary. A copy of the form shall be submitted to the Community Development Department. Alternatively, the form may be completed on-line at the following link: <http://forms.faa.gov/forms/faa7460-1>.

The addition of these four conditions above, the deed notice requirement, and the conformance of each parcel and future development with the Airport Land Use Compatibility Plan would result in a less than significant impact.

- f) Tuolumne County does not have a static emergency plan or evacuation plan due to the dynamic nature of emergencies. Tuolumne County does not have any designated evacuation routes because fires can happen anywhere and may block specific roads and certain areas may not be safe for travel. The Tuolumne County Sheriff Office is the responsible entity for declaring and directing evacuations in the case of emergencies. The Sheriff's Department will inform members of the public via the Emergency Notification System, local media, and door-to-door when feasible of where the wildfire is located, which routes are safe to use, and which locations are safe to seek refuge from the fire. Generalized emergency information is also contained within the adopted Multi-Jurisdictional Hazard Mitigation Plan. Tuolumne County maintains the Hazard Mitigation Plan and Emergency Operations Plan. Through the development approvals and coordination processes, the County would limit the potential for hazards, particularly associated with wildfire and emergency access, with the General Plan Update policies and



implementation programs. The project has been found to be consistent with Chapter 9 Public Safety and Chapter 17 Natural Hazards of the 2018 General Plan, as shown in Section g below.

In an emergency, North Airport road would be utilized by residents of the project site. From there, residents could travel east towards Parrotts Ferry Road or south on Bennet Road towards State Route 49, depending on which route was the safest for travel. Parrotts Ferry is a major collector road which function as corridors for through traffic within local areas providing service to towns and other major traffic generators within the County. They also serve to link minor collectors and local access roads with nearby towns and communities or the arterial system. Highway 49 is a Principal Arterial which serve as major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas. There are a number of minor collector and local roads that may be utilized to get residents to the major collector and arterial roads in the vicinity. The addition of 4 residential lots with a potential for an additional 6 primary single-family dwellings and 4 ADUs would not significantly impact the ability for roads in the vicinity of the project site to be used as evacuation routes in the event of an emergency. Approval of this project would result in a less than significant impact on Tuolumne County's emergency or evacuation plans.

- g) The project site is located within an SRA and is rated as high and very high fire hazard severity zone. The project has been reviewed by the Tuolumne County Fire Prevention Division. The Fire Prevention Division provided conditions for the project to ensure consistency with the Titles 11, 12, 15 and 16 of the Ordinance Code, the California Building Code, and the California Fire Code. Conditions will be added to the project including requirements for fuel reduction and thinning, building setbacks, road construction standards, driveway construction standards, residential gates, and fire and life safety requirements. Residential dwelling units are required to provide for defensible space zones around the residence to reduce fire hazards, as regulated by CalFire. The project has been found to be consistent with Chapter 9 Public Safety and Chapter 17 Natural Hazards of the 2018 General Plan. Consistency with specific Goals, Policies, and Implementation Programs will be demonstrated below.

**Policy 9.A.1:** *Actively involve fire protection agencies within Tuolumne County in land use planning decisions.*

The Tuolumne County Fire Prevention Division has been consulted with during the processing of the application. The Tuolumne County Fire Prevention Division provided conditions which have been incorporated into the projects' conditions of approval. See the "Wildfire" Section below for specific conditions provided by the Tuolumne County Fire Prevention Division.

**Policy 9.E.3:** *Require new development to be consistent with State and County regulations and policies regarding fire protection.*

The development and operation of the site will be consistent with all applicable State and County regulations and policies regarding fire protection. Road and driveway improvement plans will be reviewed by the Tuolumne County Fire Prevention Division and Engineering Division of the Department of Public Works to ensure compliance with the California Fire Code and Titles 11 and 15 of the TCOC. All building permits will be reviewed for compliance with the California Building Code and Fire Code.

**Policy 17.E.2:** *Require the maintenance of defensible space setbacks in areas proposed for development if wildland fire hazards exist on adjacent properties.*

Conditions have been incorporated into the projects conditions of approval to require defensible space setbacks from all property boundaries and to require a fuel modification prior to the Final Map.

**Policy 17.E.3:** *Require new development to have adequate fire protection and to include, where necessary, design and maintenance features that contribute to the protection of the County from the losses associated with wildland fire.*



Conditions provided by the Tuolumne County Fire Prevention Division have been incorporated into the projects' conditions of approval to minimize fire hazards and to contribute to the protection of the County from the losses associated with wildland fire. See the "Wildfire" Section below for specific conditions provided by the Tuolumne County Fire Prevention Division.

The incorporation of these conditions and the project's consistency with Titles 11, 12, 15 and 16 of the Ordinance Code, the Tuolumne County General Plan, the California Building Code, and the California Fire Code would result in a less than significant impact. See the Wildfire Section below for additional information and analysis.

**Mitigation Measures:** None required.

**Mitigation Monitoring:** Not applicable.

## **HYDROLOGY AND WATER QUALITY:**

### Issues and Supporting Information Sources

	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
<b>Would the Proposed Project:</b>				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) result in substantial erosion or siltation on or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would create flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### **Environmental Setting:**

The project site is located within the Stanislaus River watershed. The project site contains drainages that flow east to west, and eventually flow into the Stanislaus River and New Melones Reservoir. The project also contains a pond which is spring fed. The project proposes to be served via private wells.

A Water Quality Plan was prepared for Tuolumne County in 2007 and contains a comprehensive program that addressed a wide range of water quality concerns within the county and emphasizes mechanisms for maintaining and improving surface water quality (Tuolumne County 2007). The project site is located within the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB).

### **Regulatory Setting:**

The Federal Water Pollution Control Act was adopted to protect the quality of surface waters of the Country and is implemented through the National Pollutant Discharge Elimination System (NPDES). In California, the NPDES is implemented through the Storm Water Permitting Unit of the State Water Resources Control Board. Pursuant to State regulations, land development projects, which disturb one acre or more must submit a Notice of Intent (NOI) to obtain coverage under the General Construction Activity Storm Water Permit. A Stormwater Pollution Prevention Plan (SWPPP) is required to be submitted with the NOI. The SWPP is required to be prepared by a qualified professional and includes Best Management Practices (BMPs) to be implemented during project construction to minimize stormwater runoff, erosion, and sediment movement.

The Federal Emergency Management Agency (FEMA) provides information on flood hazards for communities based on its Flood Insurance Rate Maps (FIRM). The project site is located with Flood Zone X, which are areas of minimal flood hazards. Chapter 15.24 of the TCOC provides regulations related to flood hazards. The

purpose of Chapter 15.24 is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by legally enforceable regulations applied uniformly throughout the County to all publicly and privately owned land within flood prone or flood relation erosion areas.

Chapter 13.20 of the TCOC provides guidance on management of groundwater within Tuolumne County. The purpose of Chapter 13.20 is to establish an effective county policy that will assure that the overall economy and environment of Tuolumne County are protected from the impacts of the exportation of groundwater out of the county. All wells within Tuolumne County must be constructed and maintained in accordance with Chapter 13.16 and 13.20 of the TCOC.

**Analysis:**

- a) Runoff from the project site has the potential to transport silt and other sediments to off-site surface waters if soil surfaces exposed during construction on the project site are not stabilized. However, the requirement of preparation of a SWPPP with BMPs and the submittal of a NOI with the State Water Resources Control Board would ensure compliance with water quality standards and waste discharge requirements and would protect the discharge of pollutants into surface or ground water. The Open Space zoning on site, as required by Mitigation Measure BIO-1, would prohibit development or ground disturbing activities adjacent to the drainages on site.

Compliance with applicable permits and construction measures would ensure that the project would not violate any water quality standards or waste discharge requirements set forth by the Central Valley RWQCB or result in the degradation of surface and groundwater quality. Impacts would be less than significant.

- b) The project site will be served via private wells as the AE-37 zoning does not require connection to public water. The development, construction, and maintenance of wells are regulated by the Tuolumne County Environmental Health Division through the enforcement of Chapter 13.16 and 13.20 of the TCOC. A well permit is required to be issued by the Environmental Health Division to verify conformance to applicable Local, State, and Federal regulations. Two of the proposed parcels would be served by existing wells, so only two additional wells would need to be constructed to serve the project site. Conformance with Ordinance Code and applicable State and Federal regulations would result in a less than significant impact.
- ci-civ) There are no existing public storm drainages in the project vicinity. Storm drainage from the project site is via natural channels and drainages that traverse the property. Existing storm drainage features on and in the vicinity of the project site are limited to roadside ditches and culverts which conduct storm drainage across existing roadways. The Engineering Division of the Department of Public Works reviewed the project and indicated that a drainage plan is required to be submitted prior to the issuance of a Grading Permit. The drainage plan is required to address the entire project site drainage, including parking lots and paved areas, and eliminate any increase in run off to downstream drainages, culverts, and adjacent property.

Chapter 12.20 of the TCOC contains the County's regulations regarding grading activities. The Engineering Division of the Department of Public Works has reviewed the project and responded with conditions in accordance with Chapter 12.20, which will become Conditions of Approval for the project. Prior to the issuance of a Grading Permit by the Engineering Division of the Department of Public Works, the project proponent is required to submit an erosion control plan to be reviewed and approved which must be implemented during project construction activities. The project will also be conditioned to require that all soils that are disturbed by clearing or grading shall be reseeded or hydro mulched or otherwise stabilized as soon as possible. Emergency erosion control measures shall be utilized as requested by County officials.

Additionally, the project is required to submit an NOI to the State Water Resources Control Board Water Permitting Unit to obtain coverage under the General Construction Activity Stormwater Permit for the disturbance of more than one acre. A SWPPP is required to be developed and submitted with the NOI. The SWPPP must be prepared by a qualified professional and includes BMPs to be implemented to minimize stormwater runoff, erosion, and sediment movement during construction activities. Compliance with the above conditions would result in a less than significant impact.

- d) The FEMA Flood Insurance Rate Maps indicate that the project site is located with Flood Zone X, which are areas of minimal flood hazard. The drainages on site are ephemeral and intermittent in nature and only contain surface flows during portions of the year. The steep topography of the drainage channels and seasonal nature of the flows makes it unlikely that there will be on site flooding. The regulations contained in Chapter 15.24 of the TCOC would therefore not apply to the project due to the low risk of flooding and being located in Flood Zone X. The Technical Background Report for the 2018 General Plan indicates that there is no risk of tsunamis in Tuolumne County due to its distance from the ocean. There is also no risk of earthquake-induced seiches within Tuolumne County. No impact would occur.
- e) The goal of the Tuolumne County Water Quality Plan is to minimize the risk of pollution into water sources. This can be achieved by the implementation of BMPs during project development.

The Water Quality Plan categorizes BMPs into the following categories: prevention, source control, and treatment control. The project is required to submit an NOI with the State Water Resources Control Board. This submittal requires the preparation of a SWPPP, prepared by qualified professional, which must incorporate BMPs to be implemented during project construction. The SWPPP is required prior to the issuance of a Grading Permit by the Engineering Division of the Department of Public Works. Erosion control measures are required to be implemented during site disturbing activities, as required by Title 12 of the Tuolumne County Ordinance Code. The Engineering Division verifies these requirements prior to the issuance of a grading permit. Additionally, the drainages on site will be protected with Open Space zoning in which development may not occur as required by Mitigation Measure BIO-1. These measures will help reduce impacts to water quality and would support the goals of the Tuolumne County Water Quality Plan.

The following goals, policies, and implementation programs of the Water Element apply to the project:

#### **Goal 14.C**

Protect and improve the quality and quantity of the County's water resources, while protecting the rights of landowners.

The measures as listed above would reduce impacts to water quality while still allowing the property owner to utilize their property.

#### **Implementation Program 14.C.a**

Maintain local source water protection and wellhead protection programs in the Tuolumne County General Plan, such as setbacks, to protect the sources of drinking water supplies.

The project would be served via private wells. The construction and maintenance of wells are required to comply with Chapter 13.16 of the TCOC. Section 13.16.160 contains the required setbacks of wells from potential contaminant sources. The setbacks would be reviewed upon receipt of a well permit with the Environmental Health Division. Compliance with these setback requirements would support Implementation Program 14.C.a.

#### **Implementation Program 14.C.c**

Continue to require new urban residential development with a density of one dwelling unit per two acres, or greater, and commercial development, except on land designated as Special Commercial by the

General Plan land use diagrams, to be served with public water.

**Implementation Program 14.C.d**

Continue to require new urban residential development with a density of three dwelling units per acre, or greater, and commercial development, except that on land designated Special Commercial by the General Plan land use diagrams, to connect to public sewer.

The parcels are zoned AE-37 and would range from 39.2± acres to 41.4± acres in size. The maximum density in the AE-37 zoning district is two single-family dwellings and an ADU per 37 acres. Therefore, pursuant to Implementation Programs 14.C.c and 14.C.d, the project site is not required to connect to public water or public sewer.

As demonstrated above, the project is consistent with the goals, policies, and implementation programs of the Water Element of the General Plan and the Tuolumne County Water Quality Plan. Therefore, there would be a less than significant impact.

**Mitigation Measures:** None required.

**Mitigation Monitoring:** Not applicable.

## **LAND USE AND PLANNING:**

Issues and Supporting Information Sources	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
<b>Would the Proposed Project/Action:</b>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation of an agency with jurisdiction over the project (adopted for the purpose of avoiding or mitigating an environmental effect)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### **Environmental Setting:**

The project site is located within the identified community of Columbia and is currently developed with residential and agricultural uses. The project site is located along North Airport Road and the Columbia Airport is located east of the project. Parcels to the north and south consist of rural and residential parcels ranging in size from 3 to 20 acres. Parcels to the east are publicly zoned parcels under the jurisdiction of the BLM.

The project site is designated Agricultural with the -AIR overlay by the Tuolumne County General Plan land use diagrams and is subject to the 2018 Tuolumne County General Plan. The project site is located within the identified community of Columbia and is subject to the Columbia Community Plan. The zoning of the project site is AE-37:MX:AIR (Exclusive Agricultural, Thirty-Seven Acre Minimum: Mobile Home Exclusion Combining: Airport Combining) under Title 17 of the Tuolumne County Ordinance Code. The project is required to rezone portions of the site to O (Open Space) and O-1 (Open Space-1) to protect cultural and biological resources.

### **Analysis:**

- a) Tentative Parcel Map T20-004 proposes to divide the 160.90-acre site into 4 parcels ranging in size from 39.2 acres to 41.4 acres. The project site is located within the identified community of Columbia. An existing driveway off North Airport Road meeting the standards of a common driveway would be utilized to access each of the parcels. The proposed residential and agricultural uses of the project site are consistent with other parcels in the vicinity. The project site is currently developed and as such the proposed Tentative Map to split the project site into four parcels would not physically divide an established community. There would be no impact.
- b) The AG General Plan land use designation provides for the production of food, feed, fiber, nursery and apiary commodities and other productive or potentially productive lands where commercial agricultural uses can exist without creating conflicts with other land uses or where potential conflicts can be minimized. Typical land uses allowed include crop production, orchards and vineyards, grazing, pasture and rangeland, recreational farming, resource extraction activities, facilities that directly support agricultural operations and public facilities.

The AIR overlay General Plan land use designation provides for the orderly development of land surrounding the public use airports within the County to the extent that these areas are not already devoted to incompatible uses. The purpose of this designation is to protect public health, safety, and welfare by minimizing the public's exposure to excessive noise and safety hazards associated with use of the airports. Development within this designation must comply with the Tuolumne County Airport Land Use Compatibility Plan in addition to other requirements applicable to land development in Tuolumne County.

Table 1.3 of the Community Development and Design Element in the 2018 General Plan indicates that the AG land use designation is compatible with the AE-37 zoning district. The O zoning district is compatible with all General Plan designations and the AIR overlay is consistent with all zoning district.

Figure 4 below demonstrates the General Plan land use designations and zoning districts of the parcels in the vicinity of the project site. Table 7 below indicates the General Plan and zoning designations. The proposed zoning and residential use of the project site is consistent with other parcels in the vicinity.

The following Goals, Policies and Implementation Programs of the 2018 Tuolumne County General Plan pertain to this project. Consistency with each section will be demonstrated.

**Goal 1.A**

*Protect and enhance the quality of life for all residents of Tuolumne County while facilitating growth and development to meet the present and future needs of the County's residents, visitors, and businesses.*

Approval of the project would allow the development of 25 residential units to help facilitate growth and allow for additional housing options for residents of Tuolumne County.

**Policy 1.A.3**

*Address the impacts associated with new development on cultural resources and protect such resources.*

A Cultural Resource Study was conducted on the property, which identified mitigation measures to adequately protect resources that were identified on the project site. These mitigation measures have been incorporated into the projects' conditions of approval.

The following Goals, Policies, and Implementation Programs of the Columbia Community Plan, found in Volume III of the 2018 Tuolumne County General Plan apply to the project:

**Policy CB-A.1**

*Maintain the rural, small-town atmosphere of the Columbia area by preserving the mixture of urban and non-urban land uses found in the area.*

**Policy CB-A.2:**

*Retain the historic Gold Rush character of the Columbia Community.*

The larger, agriculturally zoned parcels would support the rural, small-town, and historic character of Columbia.

**Goal CB-E**

*Conserve the natural and cultural resources of the Columbia community.*

Biological and Cultural Resource studies were prepared. The studies identified mitigation measures to be implemented into the project in order to protect natural and cultural resources on site. The implementation of these mitigation measures, including protection of these resources with O and O-1 zoning would support Goal CB-E.

**Policy CB-E.1**

*Protect outstanding scenic and historic resources, including hillsides and hilltops, which contribute to the visual quality and rural character of the Columbia community.*

The applicant has proposed the steepest slopes and hilltops to be protected with Open Space zoning, in support of Policy CB-E.1.

**Zoning Ordinance**

The project site is zoned AE-37:MX:AIR under Title 17 of the TCOC. The parcels will retain their AE-

37:MX:AIR zoning. The purpose of the AE-37 zoning district is to provide for agricultural and resource production where commercial agricultural uses can exist without encroachment of incompatible uses and provide for the preservation and conservation of working landscapes and open space. The project site is currently utilized for cattle grazing, which is consistent with the AE-37 zoning.

Section 17.09.040 indicates that any parcel zoned AE-37 shall be a minimum of thirty-seven gross acres in area and shall have an area to perimeter ratio of at least 210. The Tentative Map submitted indicates that each of the 4 parcels proposed would meet these minimum requirements.

The maximum residential density in the AE-37 zoning district is two dwellings per thirty-seven acres, with additional possible for agricultural laborer housing or for Accessory Dwelling Units (ADU) less than 1,200 square feet permitted by State ADU legislation. In the AE-37 zoning district, one single-family dwelling regardless of parcel size is permitted and one additional single-family dwelling is permitted when the parcel is thirty-seven acres or larger. An additional ADU, which must be less than 1,200 square feet in size, is permitted on each parcel pursuant to State ADU legislation. The parcels range in size from 39.2± acres to 41.4± acres. Therefore, each parcel may be developed with two primary single-family dwellings and one ADU, for a total of eight primary single-family dwellings and four ADUs at full build out. Because there are two single-family dwellings currently on the site, an additional six primary single-family dwellings and four ADUs may be constructed in the future.

The :MX combining district is intended to be combined with any principal zoning district in which the use of older mobile homes as residences on individual parcels would conflict with the aesthetic, social or economic development of any such principal zoning district. Mobile homes used as a residence on parcels containing the :MX zoning must conform to the regulations in Chapter 17.48 of the TCOC. Community Development Department staff would consistency with the regulations of Chapter 17.48 upon receipt of a building permit for a mobile or manufactured home on site.

The : purposes of the :AIR combining district are as follows:

- A. To protect public health, safety and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses; and
- B. To implement the policies of the Tuolumne County airport land use compatibility plan adopted January 22, 2003, as may be amended from time to time; and
- C. To inform property owners and prospective purchasers of property within areas around airports of the proximity of the airport and aircraft use associated with the airport and that land development must comply with the Tuolumne County airport land use compatibility plan in addition to development regulations contained in the Tuolumne County General Plan and this code.

The project site is subject to the Tuolumne County Airport Land Use Compatibility Plan. The project was considered by the Tuolumne County Airport Land Use Commission at its meeting on June 4, 2020 as required by Section 18.24.040 of the TCOC and Policy 2.1.5.2(b)(1) of the Airport Land Use Compatibility Plan. The ALUC determined that the project would be consistent with the Airport Land Use Compatibility Plan, subject to the addition of conditions. See the "Hazards and Hazardous Materials" and "Noise" Sections for additional analysis on the airport influence zones and conditions added by the ALUC.

Mitigation Measure BIO-1 and CUL-1 require portions of the site to be rezoned to O (Open Space) and O-1 (Open Space-1). The purpose of the O zoning district is to protect the public in areas not suitable for development because of flooding or other natural hazards and to provide areas of open space for the protection of wildlife habitat and scenic quality where vegetation removal may be appropriate in certain instances or for the preservation of cultural resources. The purpose of the O-1 zoning district is to preserve and protect areas of valuable wildlife habitat consistent with the wildlife policies of the general



plan or areas with significant cultural resources. The O and O-1 zoning are required to protect biological and cultural resources on site. Existing roads shall be allowed to remain and be maintained within the O and O-1 zoned areas. Vegetation clearing for fire hazard reduction purposes and livestock grazing would also be permitted within the O and O-1 zoning.

Prior to development of the project site, the following entitlements may be required:

<b>Table 6. Future Entitlements</b>	
<b>Permit</b>	<b>Agency</b>
Grading Permit	Engineering Division of the Department of Public Works
Road Encroachment Permit	Engineering Division of the Department of Public Works
Streambed Alteration Agreement	California Department of Fish and Wildlife
404 Permit	US Army Corps of Engineers
General Construction Activity Storm Water Permit	Regional Water Quality Control Board
Building Permits	Building Division of the Community Development Department
Well and Septic Permits	Environmental Health Division of the Community Development Department

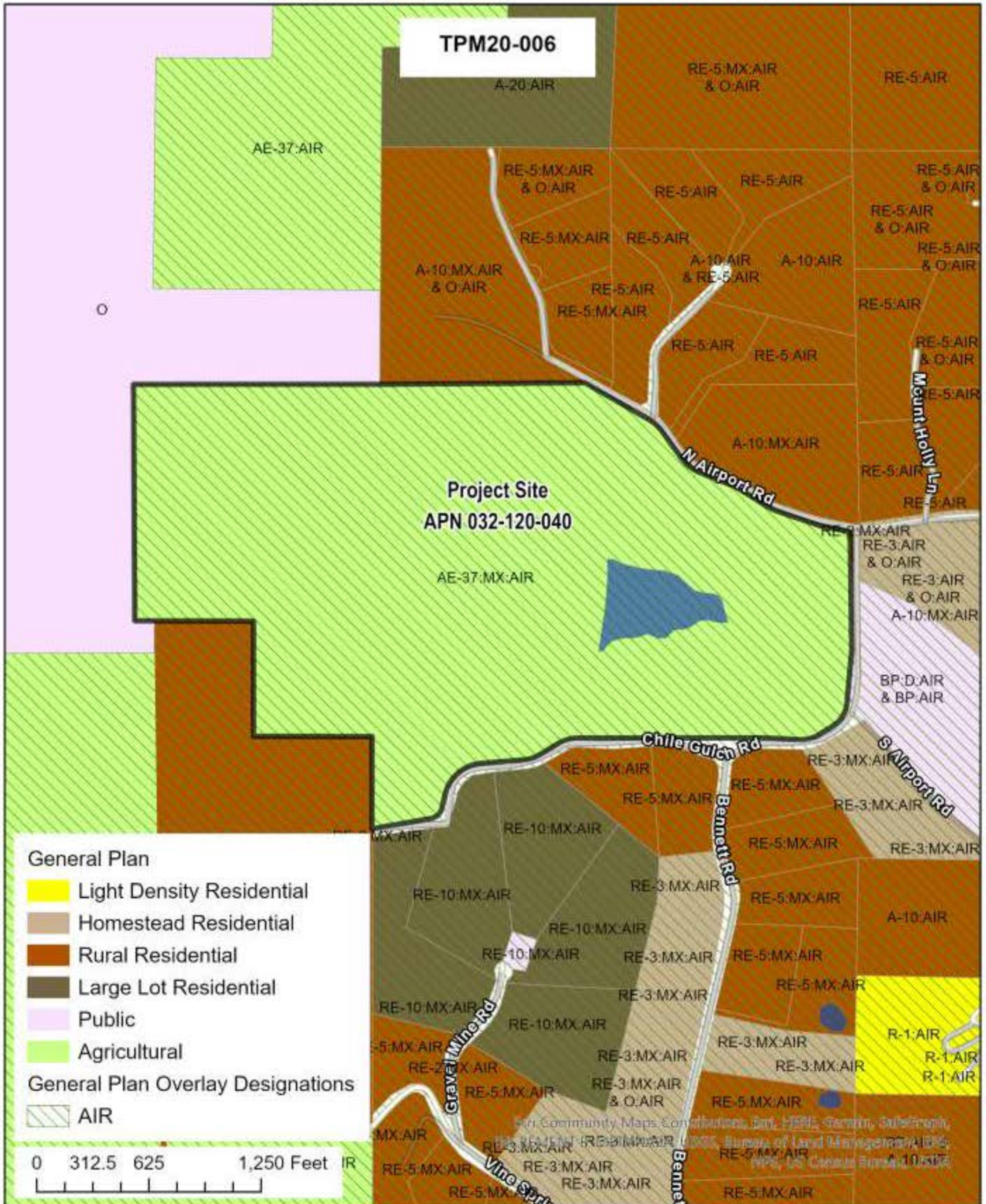
The project will be conditioned to require securement of the above permits (Table 6) if needed. This will ensure compliance with all applicable policies and regulations of each of the permitting agencies.

As indicated above, the project is consistent with all applicable land use plan, policy, and regulations of agencies with jurisdiction over the project. Therefore, there is a less than significant impact.

**Mitigation Measures:** None required.

**Mitigation Monitoring:** Not applicable.

Figure 4: General Plan and Zoning Designation Map



<b>Table 7: Zoning Designations in Figure 4</b>
AE-37 = Exclusive Agricultural, Thirty-Seven Acre Minimum
A-20 = General Agricultural, Twenty Acre Minimum
A-10 = General Agricultural, Ten Acre Minimum
R-1 = Single-Family Residential
RE-2 = Residential Estate, Two Acre Minimum
RE-3 = Residential Estate, Three Acre Minimum
RE-5 = Residential Estate, Five Acre Minimum
RE-10 = Residential Estate, Ten Acre Minimum
BP = Business Park
O = Open Space
:MX = Mobile Home Exclusion Combining
:AIR = Airport Combining
:D = Design Control Combining

## **MINERAL RESOURCES:**

### **Issues and Supporting Information Sources**

	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
<b>Would the Proposed Project:</b>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### **Environmental Setting:**

Tuolumne County has an extensive history as a mining community. Tuolumne County was historically mined for gold during the early 1850s. Current mining operations within Tuolumne County mine for limestone and dolomite, and various crushed rock, gravel, and sand products.

### **Regulatory Setting:**

The California Surface Mining and Reclamation Act of 1975 (SMARA) requires classification of land in the state according to the known or inferred mineral resource potential of that land, which is provided direction under the State Geologist. The California Department of Conservation Division of Mines and Geology has developed Mineral Resource Zones (MRZ) to classify the areas where significant mineral resources occur or are likely to occur. Areas classified as MRZ-2a or MRZ-2b have been identified as having demonstrated or inferred significant mineral resources.

The Mineral Preserve Overlay (MPZ) General Plan land use designation is used to identify land that has been classified as either Mineral Resource Zone MRZ-2a or MRZ-2b by the State Mining and Geology Board under the State Classification System and meets criteria for relationship to surrounding land uses, access, and other issues. The MPZ overlay designation is found along the Mother Lode gold ore zone, the carbonate belt from Columbia to Algerine, and the table mountain basalt as an aggregate source. The MPZ Overlay is used to direct the development potential towards the types of development that are compatible with possible mineral resource extraction.

### **Analysis:**

- a,b) The *Mineral Land Classification of a Portion of Tuolumne County, California for Precious Metals, Carbonate Rock and Concrete-Grade Aggregate (1997)*, DMG Open File Report 97-09, was reviewed for the project. For precious metals and aggregate minerals, the project site is located within Pocket Belt-East Belt, which is classified as MRZ-3b and is defined as areas of inferred mineral occurrence with undetermined mineral resources significance.

For carbonate minerals, the project site is located within the Southwestern County Area which is classified as MRZ-3b and Columbia Sonora Area, which is classified as MRZ-3a. MRZ-3a are areas of known mineral occurrence with undetermined mineral resource significance.

The -MPZ overlay designation provides for the extraction and processing of mineral resources. This overlay is used to identify land that has been classified as either Mineral Resource Zone MRZ-2a or MRZ-2b by the State Mining and Geology Board under the State Classification System and meets criteria for relationship to surrounding land uses, access, and other issues. Uses within the -MPZ overlay designation are those that are compatible with mineral resource extraction and processing. The project site does meet the criteria for the MPZ overlay as the site does not contain mineral deposits classified as MRZ-2a or MRZ-2b. Therefore, there are no known mineral resources of value

on site.

Policy 7.C.1 of the Tuolumne County General Plan directs the County to protect lands classified as significant Mineral Resource Zone-2 (MRZ-2) by the State Department of Conservation Division of Mines and Geology, and meeting the criteria established in the General Plan for MPZ overlay, from conflicts, such as incompatible development on surrounding land, which might prevent future mining activities. The project site does not contain the MPZ overlay General Plan land use designation and does not meet the criteria for the MPZ overlay. There are no parcels within the vicinity of the project site that contain the -MPZ overlay designation. Therefore, the project would have a less than significant impact on known mineral resources.

**Mitigation Measures:** None required.

**Mitigation Monitoring:** Not applicable.

## **NOISE:**

### Issues and Supporting Information Sources

<i>Potentially Significant Impact</i>	<i>Less-than- Significant With Mitigation Incorporation</i>	<i>Less-than- Significant Impact</i>	<i>No Impact</i>
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#### **Would the Proposed Project Result in:**

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located with the vicinity of a private airstrip or an airport land use plan or, where such 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### **Environmental Setting:**

Noise (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz) (Tuolumne County 2018). In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress.

One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level ( $L_{eq}$ ). The  $L_{eq}$  is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (Tuolumne County 2018). Typically,  $L_{eq}$  is summed over a one-hour period. The maximum instantaneous noise level ( $L_{max}$ ) can be used to describe short noise events (e.g., construction activities, car pass-by). In addition, the community noise equivalent level (CNEL), is typically used for describing ambient noise levels and sources that generate noise over extended periods of time (e.g., roadway noise). The CNEL is a weighted noise level over a 24-hour period that applies a penalty of 5 dB during the evening hours (7:00 p.m. to 10:00 p.m.) and a 10-dB penalty during the nighttime hours (10:00 p.m. to 7:00 a.m.).

The sound pressure level is measured on a logarithmic scale with the 0-dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Decibels cannot be added arithmetically, but rather are added on a logarithmic basis. Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3-dB change in community noise levels is noticeable, while 1–2 dB changes generally are not perceived. Quiet suburban areas typically have exterior noise levels in the range of 40–50 dBA, while those along arterial streets are in the 50–60+ dBA range. Normal conversational levels are in the 60–65 dBA range and ambient noise levels greater than that can interrupt conversations (Tuolumne County 2018).

Discretionary projects are evaluated utilizing Chapter 5 of the Tuolumne County General Plan relating to Noise. The following definitions are from the Glossary of the Tuolumne County General Plan and are used in the Noise Element of the General Plan:

- CNEL: Community Noise Equivalent Level means a 24-hour energy equivalent level derived from a variety of single-noise events, with weighing factors of approximately 4.8 and 10 decibels applied to the evening (7:00 PM to 10:00 PM) and nighttime (10:00 PM to 7:00 AM) periods, respectively, to allow or the greater sensitivity to noise during these hours.



- Ldn: the day/night average sound level. The Ldn is the average equivalent sound level during a 24-hour day, obtained after addition of ten (10) decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.
- dBA: is the "A-weighted" scale for measuring sound in decibels. It weighs or reduces the effects of low and high frequencies in order to simulate human hearing. Every increase of 10 dBA doubles the perceived loudness though the noise is actually ten times more intense.
- A-Weighted Sound Level: All sound levels referred to in this document are in A-weighted decibels. A weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A weighting, as it provides a high degree of correlation with human annoyance and health effects.

Decibel: means a unit used to express the relative intensity of a sound as it is heard by the human ear. The decibel scale expresses sound level relative to a reference sound pressure of 20 micronewtons per square meter, which is the threshold of human hearing. Sound levels in decibels (dB) are calculated on a logarithmic basis. An increase of 10 decibels represents a 10-fold increase in acoustic energy, and an increase of 20 decibels corresponds to a 100-fold increase in acoustic energy. An increase of 10 dB is usually perceived as a doubling of noise.

Equivalent Sound Level (Leq): The equivalent sound level is the sound level containing the same total energy as a time varying signal over a given sample period. Leq is typically computed over 1, 8 and 24-hour sample periods.

Leq is the energy equivalent level, defined as the average sound level on the basis of sound energy (or sound pressure squared). The Leq is a "dosage" type measure and is the basis for the descriptors used in current standards, such as the 24-hour CNEL used by the State of California. The hourly Leg is measure over a 1-hour sample period.

Lmax: is the highest sound level measured over a given period of time.

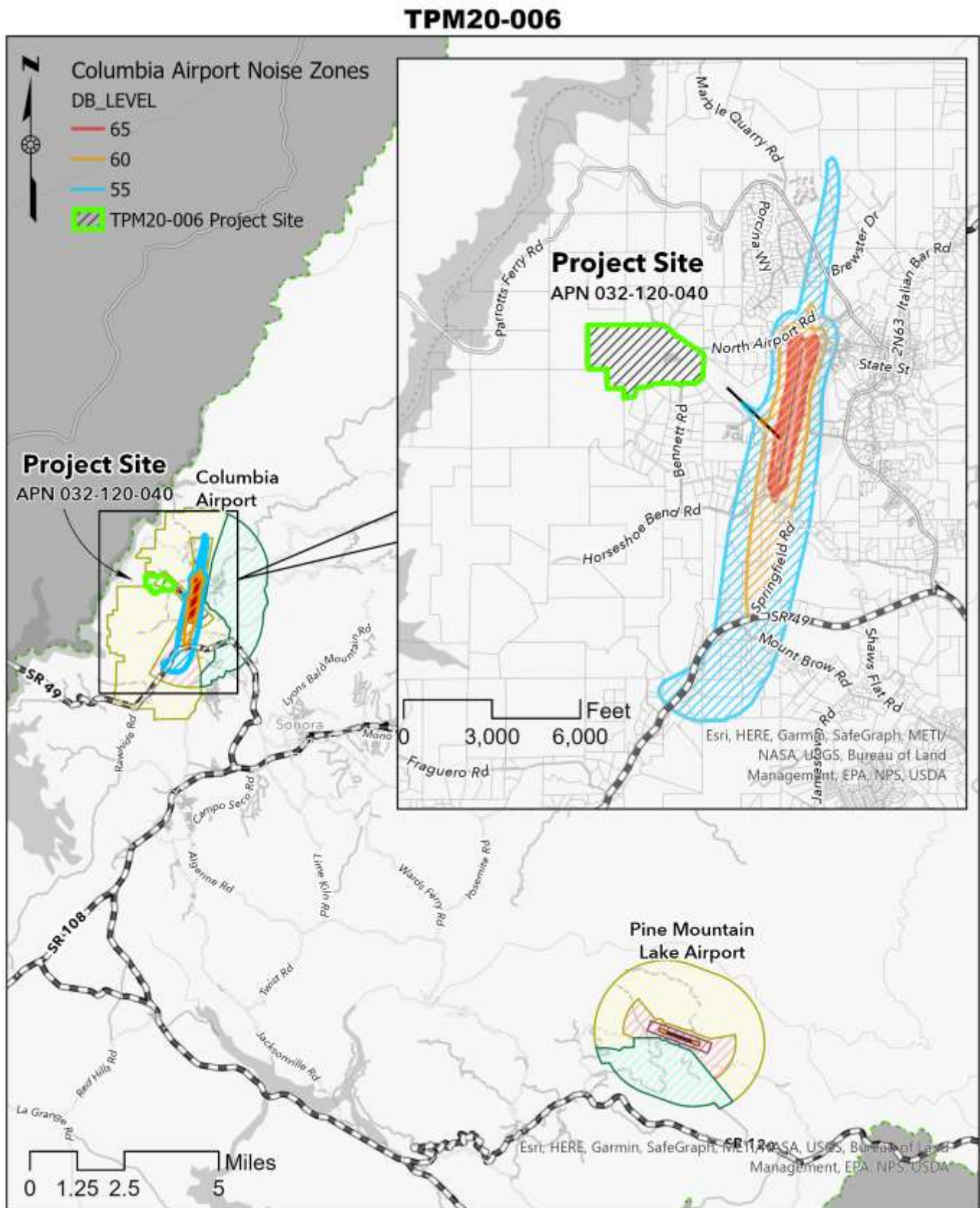
The ambient noise environment in Tuolumne County is largely affected by traffic on highways and County roadways, commercial and industrial uses, agricultural uses, railroad operations, and aircraft. The most prominent sources of noise in the project vicinity are motor vehicles (e.g., automobiles, buses, trucks, and motorcycles) and aircraft associated with the Columbia Airport. Motor vehicle noise is a major influence on noise levels to nearby sensitive receptors (primarily to nearby residences).

Motor vehicle noise is of concern because it is characterized by a high number of individual events, which often create a sustained noise level, and because of its proximity to noise sensitive uses. In general, corridors throughout Tuolumne County consist of one or two lanes in each direction with varying speed limits ranging from 35 miles per hour (mph) to 55 mph.

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads.

The project site is located adjacent to the Columbia Airport. Figure 5 shown below indicates the noise levels expected with the Columbia Airport. Use of land located within the 55 dB, 60 dB and 65 dB noise contours shall be constructed and sited as to provide noise levels compatible with the intended use and which ensure a healthy living environment. Figure 6 below shows the compatibility criteria for the noise levels associated with the airports. The maximum aircraft-related interior noise levels which shall be considered acceptable for living areas for single-family residences are 45dB CNEL. The project site is located outside of the 55dB, 60dB, and 65dB noise contours (Figure 5).

### Figure 5: Noise Contour Map





## Figure 6: Noise Compatibility Criteria

Land Use Category	CNEL (dB)				
	50–55	55–60	60–65	65–70	70–75
<i>Residential</i>					
single-family, nursing homes, mobile homes	+	o	–	--	--
multi-family, apartments, condominiums	++	+	o	--	--
<i>Public</i>					
schools, libraries, hospitals	+	o	–	--	--
churches, auditoriums, concert halls	+	o	o	–	--
transportation, parking, cemeteries	++	++	++	+	o
<i>Commercial and Industrial</i>					
offices, retail trade	++	+	o	o	–
service commercial, wholesale trade,	++	++	+	o	o
warehousing, light industrial	++	++	++	+	+
general manufacturing, utilities, extractive industry					
<i>Agricultural and Recreational</i>					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	–
parks, playgrounds, zoos	++	+	+	o	–
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	–
amphitheaters	+	o	–	--	--

Land Use	Acceptability	Interpretation/Comments
++	<i>Clearly Acceptable</i>	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	<i>Normally Acceptable</i>	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o	<i>Marginally Acceptable</i>	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
–	<i>Normally Unacceptable</i>	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
--	<i>Clearly Unacceptable</i>	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

**Table 2b Noise Compatibility Criteria**

2-25

The Tuolumne County General Plan has one goal and numerous policies and programs in place intended to preserve the ambient noise environment and reduce impacts on sensitive land uses. Specific programs that have been adopted by the County include requirements for development projects to conduct acoustical noise analyses to ensure compliance with adopted noise standards and avoid conflicts with existing and new land uses. Tuolumne County has adopted specific noise standards for transportation noise sources (Table 8), stationary noise sources (Table 9), and for cumulative increases in noise (Table 10). Adopted noise standards used for significance determination are summarized below.

<b>Table 8</b> <b>MAXIMUM ALLOWABLE NOISE EXPOSURE-TRANSPORTATION NOISE SOURCES</b> <b>EXCLUDING AVIATION RELATED NOISE<sup>1</sup></b>		
	Outdoor Activity Areas <sup>2</sup>	Interior Spaces <sup>3</sup>
<b>Land Use</b>	<b>L<sub>dn</sub>/CNEL, dB</b>	<b>L<sub>dn</sub>/CNEL, dB</b>
Urban Residential	60	45
Transient Lodging <sup>4</sup>	60	45
Hospitals, Nursing Homes <sup>5</sup>	60	45
Churches, Meeting Halls, Office Buildings, Mortuaries	---	45
Schools, <sup>5</sup> Libraries, Museums	---	45
<sup>1</sup> This table applies to noise exposure levels that result from a transportation noise source other than aircraft; Table 7 addresses aircraft noise. For existing receiving land uses, consideration shall be given to the noise exposure from new transportation noise sources during the design and approval of the new transportation project. In the case of existing transportation noises sources, projects or consideration of land use changes involving noise-sensitive land uses shall address the noise exposure environment and use these standards as thresholds. <sup>2</sup> An outdoor activity area is a location outside of the immediate structure where formal or informal activities are likely to happen. For example, anywhere on an urban residential property could be an outdoor activity area, while the outdoor activity area for a school would be the playground or sporting fields, and for a hospital would be an exterior patio or exercise area. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land uses. <sup>3</sup> For typical construction methods, the reduction in the noise level from the outside of the structure to the inside is approximately 15dB. In a high noise environment, special construction techniques may be necessary to reduce the interior noise level to the standard. <sup>4</sup> Transient lodging are overnight accommodations usually intended for occupancy by tourists or other short-term paying customers, examples include hotels, motels, or homeless shelters. Transient lodging, as used in this case, does not include bed and breakfast establishments which are located in rural areas, campgrounds, or guest ranches. <sup>5</sup> These standards only apply to nursing homes or schools that have more than 6 beds or students, respectively.		

<b>Table 9</b> <b>MAXIMUM ALLOWABLE NOISE EXPOSURE-STATIONARY NOISE SOURCES<sup>1</sup></b>		
	<b>Daytime</b> <b>(7 a.m. to 10 p.m.)</b>	<b>Nighttime</b> <b>(10 p.m. to 7 a.m.)</b>
Hourly $L_{eq}$ , dB <sup>2</sup>	50	45
Maximum level, dB <sup>3</sup>	70	65

<sup>1</sup> This table applies to noise exposure as a result of stationary noise sources. For a development project or land use change involving a noise-sensitive land use, the noise from nearby noise sources will be considered during design and approval of the project, or in determining whether the land use change is appropriate. For development projects which may produce noise, land use changes and project review will consider the effects of the noise on possible noise-sensitive land uses. When considering modification or expansion at a site that already produces noise levels which exceed these standards at noise-sensitive land uses, the modification or expansion shall be reviewed to consider if the proposed action will further raise the existing noise levels received at the noise-sensitive land use(s).

Noise-sensitive land uses include urban residential land uses, libraries, churches, and hospitals, in addition to nursing homes or schools which have over 6 beds or students, respectively. Transient lodging establishments which are considered noise sensitive land uses include hotels, motels, or homeless shelters, but not bed and breakfast establishments located in rural areas, campgrounds, or guest ranches.

<sup>2</sup> The sound equivalent level as measured or modeled for a one-hour sample period. The daytime or nighttime value should not be exceeded as determined at the property line of the noise-sensitive land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.

<sup>3</sup> Similar to the hourly  $L_{eq}$ , except this level should not be exceeded for any length of time.

<b>Table 10</b> <b>SIGNIFICANCE OF CHANGES IN CUMULATIVE NOISE EXPOSURE<sup>1</sup></b>	
<b>Ambient Noise Level Without Project<sup>2</sup></b> <b>(Ldn or CNEL)</b>	<b>Significant Impact if Cumulative Level</b> <b>Increases By:</b>
<60 dB	+ 5.0 dB or more
60-65 dB	+ 3.0 dB or more
>65 dB	+ 1.5 dB or more

<sup>1</sup>These standards shall be applied when considering the noise impacts from projects that could cause a significant increase in the cumulative noise exposure of existing noise-sensitive land uses. If it is likely that existing noise-sensitive land uses could experience these increases in cumulative noise exposure, as measured in CNEL or Ldn, then an acoustical analysis that meets the requirements of Table 7 shall be accomplished and the results considered in project design.

<sup>2</sup>Ambient Noise is defined as the composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Source: Federal Interagency Committee on Noise (FICON), Federal Agency Review of Selected Airport Noise Analysis Issues, August 1992.

## **Analysis:**

### **a) Construction**

Construction activities would result in short-term noise. Construction activities would consist of grading and site preparation, paving activities, and building construction, all of which require the use of heavy-duty equipment that generate varying noise levels. Construction activities would be limited to the less noise-sensitive hours (e.g., daytime) of 7:00 a.m. to 7:00 p.m., Monday through Saturday, consistent with Tuolumne County General Plan Maximum Allowable Noise Exposure-Stationary Noise Source standards in Table 5.C of Chapter 5: Noise Element of the General Plan (Tuolumne County 2019).

Construction-generated noise levels would fluctuate depending on the type, number, and duration of equipment used. The effects of construction noise largely depend on the type of construction activities

occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment at nearby receptors. Construction equipment would vary by phase, but the entire construction process would include operation of dozers, excavators, loaders/backhoes, paving equipment, forklifts, and haul trucks. Noise generated from these pieces of equipment would be intermittent and short as typical use is characterized by periods of full-power operation followed by extended periods of operation at lower power, idling, or powered-off conditions.

The grading and site preparation phase typically generate the most substantial noise levels because of the onsite equipment associated with grading, compacting, and excavation are the noisiest. Site preparation equipment and activities include graders, dozers, and excavators. Because this is typically the loudest phase, it was assumed that one grader, one dozer, and one excavator could be operating simultaneously, generating the loudest anticipated noise levels for the overall construction activities. Noise emission levels from these types of construction equipment are shown in Table 11.

<b>Table 11</b> <b>Noise Levels Generated by Typical Construction Equipment</b>		
Equipment Type	Maximum Noise Level (dB Lmax) at 50 feet <sup>1</sup>	Typical Noise Level (dB Leq) at 50 feet <sup>1,2</sup>
Grader	85	81
Dozer	85	81
Loader	80	76
Combined Noise Level at 50 feet	88.6	84.7
Notes: dB= decibels; Lmax = maximum sound level; Leq = equivalent continuous sound level <sup>1</sup> Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment. <sup>2</sup> Assumes typical usage factors. Source: Federal Transit Administration 2006		

Based on the reference noise levels listed in Table 11 and accounting for typical usage factors for each piece of equipment, onsite construction activities could generate a combined average noise level of approximately 86 dB Leq and 85 dB Lmax at 50 feet from the project site boundary.

Tuolumne County does not have adopted daytime construction noise standards. However, when evaluating potential noise impacts, temporary short-term noise occurring during the less sensitive times of the day, when people are active, out of their homes, or otherwise not sleeping, are generally considered less of a nuisance and less likely to disrupt sleep, or otherwise result in significant noise exposure. Thus, considering that construction activities would occur during the daytime hours, in accordance with typical County-required conditions of approval limiting construction activities to Monday through Saturdays from 7:00 a.m. and 7:00 p.m., overall construction activities would be temporary, construction noise would fluctuate, and the loudest levels would occur for a shorter duration than the overall construction duration, existing nearby sensitive receptors would not be substantially affected. To ensure impacts are less than significant, NOI-1 shall be implemented.

### Operation

Noise generated by the project operation would be similar to other stationary noise sources in the area which are residential or agricultural in nature. The proposed project would result in the following sources that may increase the ambient noise level: vehicle traffic on nearby roadways and residential activities associated with residential developments. The project does not include a Zone Change or change in use of the parcel, so sources and types of noise would not substantially change from what is currently permitted. Sources related to residential or agricultural uses do not typically result in increased direct or cumulative noise levels above threshold established in the General Plan. However, to ensure that any noise generated by the project is reduced to a less than significant level, NOI-2 should be implemented and will be enforced through the Code Compliance process based on citizen complaints.

Incorporation of Mitigation Measures NOI-1 and NOI-2 would reduce potential impacts to a less than significant level.

- b) The project would not include any long-term operational sources of ground vibration, and therefore, this analysis focusses on short-term temporary vibration levels associated with construction activity. Construction activities in the future would generate varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and, at high levels, can cause annoyance and sleep disturbance. When considering impacts from construction-related vibration, damage to nearby structures and disturbance to sensitive nearby uses are the two factors typically evaluated. However, ground vibration from construction activities do not often reach the levels that can damage typical structures (Federal Transit Administration [FTA] 2006). Further, pile driving and blasting typically generate the most severe vibration levels.

Construction would include grading, site preparation, building construction, and paving activities. As discussed above, no pile driving or blasting would occur. Typical equipment that would be used includes dozers, loaders, excavators, trucks, and paving equipment. In addition, construction activities would only take place during the daytime hours, when people are less susceptible to noise.

Considering reference vibration levels for large dozers, FTA's vibration standard of 80 vibration-decibels (VdB) would not be exceeded beyond 40 feet and Caltrans's recommended vibration level for fragile buildings of 0.1 in/sec peak particle velocity (PPV) would not be exceeded beyond 25 feet from construction activity. Existing receptors and structures are located beyond these distances. Considering that construction activities would not include major sources of vibration, would occur during the daytime hours, and existing structures are located at adequate distances from proposed construction activity, no existing structures or sensitive land uses would be exposed to excessive vibration levels. This impact would be less than significant.

- c) The project site is located within 2 miles of the Columbia Airport. The project site is located within the area that is subject to the Tuolumne County Airport Land Use Compatibility Plan, as indicated by the :AIR zoning. The project site is not located withing the 55dB, 60dB, or 65dB noise contours associated with the Columbia Airport (Figure 5). Because the project site is located outside the 55dB, 60dB, or 65dB noise contours, construction methods would eliminate most noise intrusions for indoor uses such as a single-family dwelling. Figure 3 in the Hazards and Hazardous Materials Section above indicate the types of noise-sensitive uses which would not be compatible in the airport compatibility zones. In Compatibility Zones B1, B2, and C, noise sensitive uses are prohibited, which include schools, day care centers, libraries, hospitals, convalescent homes, and outdoor uses such as outdoor theaters. Compliance with the Tuolumne County Airport Land Use Compatibility Plan would ensure that incompatible uses related to noise levels from the Columbia Airport would not take place on the project site. The deed notice which is required to be recorded with all parcels containing the :AIR zoning would ensure that future property owners are aware of the noise conditions of the site related to the proximity of the airport. Therefore, there would be a less than significant impact.

### **Mitigation Measures:**

**NOI-1:** Hours of exterior construction on the project site shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Saturday. Exterior construction shall be prohibited on Sunday and County holidays.

**NOI-2:** The noise levels generated by the project shall be restricted to the following exterior noise limits as measured at the property line:

Zoning Classification of Receiving Property	Noise Level (dB) of Sound Source	
	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
MU, R-3, R-2, R-1, RE-1, RE-2, RE-3, RE-5, RE-10, C-O, C-1, C-S, BP	50 L <sub>eq</sub> . (1 hour) <sup>1</sup>	45 L <sub>eq</sub> . (1 hour) <sup>1</sup>

<sup>1</sup>L<sub>eq</sub>. 1 hour refers to the average noise level measured over a one-hour period.

**Mitigation Monitoring:** These conditions will be monitored through citizen complaints. Confirmed violations will be referred to the Code Compliance Officer for processing consistent with established code compliance procedures outlined in Chapter 1.10 of the Ordinance Code. A Notice of Action will be recorded to advise future owners of the required mitigation measures and the responsibility to comply with said measures.

## **POPULATION AND HOUSING:**

Issues and Supporting Information Sources	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
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### **Would the Proposed Project/Action:**

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### **Environmental Setting:**

The population in Tuolumne County in 2018 was at 55,365 for the entire County including the City of Sonora. Between 2010 and 2018 Tuolumne County's growth rate was less than 1% and was negative for some years, as indicated in Figure 5 in the Housing Element found in the Technical Background Report of the 2018 General Plan. The projected population for Tuolumne County in 2024, including the City of Sonora, is estimated at 54,390, which is a decrease from its current population. The proposed project includes the creation of four parcels which could each be developed with a total of two single-family dwellings and one ADU. At full build out, the site could potentially contain a total of eight single-family dwellings and four ADUs.

The project site is currently developed with two single-family dwellings. There are existing roads which serve the project site and there is currently electricity and telecommunications infrastructure in place serving the existing residences. The parcels will be served via on-site private wells and private sewage disposal systems. The project would not require the demolition of the existing single-family dwellings or conversions of the dwelling units to a non-residential use.

### **Analysis:**

- a) The project proposed to divide a 160.9± acre parcel into 4 parcels. Each lot may be developed with 2 primary single-family dwellings and one ADU, for a total of 8 primary single-family dwellings and 4 ADUs at full build out. Because there are 2 single-family dwellings on the site, an additional six primary single-family dwellings and four ADUs may be constructed in the future. These dwelling units would be expected to be occupied by family members. There is existing infrastructure to serve the proposed project. Existing roads, electrical service, telecommunication facilities, private sewage disposal systems, and private wells are in place to serve the existing single-family dwellings on site and are readily available to serve the project site. The project site will be accessed via a common driveway off North Airport Road, which will utilize the existing driveway. The project site is located adjacent to other rural residential properties and is surrounded by parcels ranging in size from 3 acres to 20 acres. The construction of 10 additional residential units, with 4 of those units being ADUs, would not be considered substantial population growth to an area with existing services. Therefore, there is a less than significant impact.
- b) The project site is currently developed with two single-family dwellings. The single-family dwellings will not be impacted by the proposed project. The project would not require the demolition, removal, or conversion of the existing residences. Therefore, the proposed project would not displace people or housing and the construction of replacement housing elsewhere would not be required as a result of the project. Therefore, there would be no impact.

**Mitigation Measures:** None required.

**Mitigation Monitoring:** Not applicable.

## **PUBLIC SERVICES:**

### Issues and Supporting Information Sources

<i>Potentially Significant Impact</i>	<i>Less-than- Significant With Mitigation Incorporation</i>	<i>Less-than- Significant Impact</i>	<i>No Impact</i>
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#### **Would the Proposed Project/Action:**

- 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 these public services:

Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## **Environmental Setting:**

### Fire Protection

Fire protection services are provided to unincorporated Tuolumne County by Tuolumne County Fire Department (TCFD), California Department of Forestry and Fire Protection (CAL FIRE), seven fire protection districts, and the United States Department of Agriculture in the Stanislaus National Forest (Tuolumne Fire Safe 2008). The majority of unincorporated Tuolumne County falls outside a fire district boundary and is protected by TCFD (administered by CAL FIRE under a contractual agreement with the County since 1975). TCFD has 13 fire stations, eight of which are in the unincorporated area of Tuolumne County. (Source: GPU EIR)

The nearest fire station to the project site is Station 79 Columbia College, located approximately 4.8± miles from the project site. This station is operated under a cooperative agreement with CalFire and Tuolumne County Fire. In 2006, Tuolumne County Fire Department and other local and State fire protection agencies entered in the Automatic Aid/Mutual Aid Agreement. This is a mutual cooperation agreement to increase fire and other emergency protection by allowing for the closest fire department to be dispatched for emergency calls, even if the emergency is outside of their jurisdictional boundary.

### Police Protection

Law enforcement services in the in the unincorporated portion of Tuolumne County is provided by the Tuolumne County Sheriff's office. The nearest station to the project site is located at 28 Lower Sunset Drive in Sonora, which is approximately 6.1± road miles away from the project site. Response times for the entire county averages between 5 minutes to 35 minutes depending on day of the week, time, and the location of the incident. An average of six deputies patrols the county at any given time.

The California Highway Patrol (CHP) provides additional enforcement along State Highways and County roadways. The CHP offers other services as needed to support the safety for residents of the County. The nearest CHP office to the project site is located at 18437 Fifth Avenue in Jamestown, approximately 7.4± road



miles away from the project site.

### Schools

The project site is within the Columbia Elementary School District and the Sonora Union High School District.

Columbia Elementary is located approximately 0.85± aerial miles and 2.4± road miles east of the project site. Sonora High School is approximately 5.4± miles away from the project site. Columbia Elementary serves students in grades Kindergarten through 8<sup>th</sup> grade. Enrollment at Columbia Elementary in the 2019/2020 school year was 467 students. Sonora High School serves students in grades 9<sup>th</sup> through 12<sup>th</sup>. Enrollment at Sonora High in the 2019/2020 school year was 961 students.

### Parks

Tuolumne County has a variety of recreational opportunities for the public, including Yosemite National Park, Stanislaus National Forest, State parks, and other Federal, State and Local government agencies such as the U.S. Bureau of Reclamation and the Bureau of Land Management. Community based recreation and park districts include the Tuolumne County Recreation Department and the City of Sonora Recreation Department. Tuolumne County operates and maintains approximately 341± acres of parks.

The nearest recreational facilities to the project site include Columbia State Park, the Heaven for Children playground and skatepark in Sonora, and Tuttletown Recreation Area. Columbia State Park offers hiking trails, picnic tables, museums and exhibits, and guided tours. The Heaven for Children playground offers a children's playground, skateboard park, and picnic and barbeque facilities. Tuttletown Recreation Area offers access to New Melones Reservoir, and includes camping facilities, a boat launch, day use area, and hiking trails.

### **Analysis:**

#### Fire Protection

Fire protection services would be provided via Tuolumne County Fire. The project has been reviewed by the Tuolumne County Fire Prevention Division (FPD) for consistency with the National Fire Code, California Fire Code, California Building Code, the Tuolumne County General Plan and Ordinance Code. Any future development on the project site will be subject to the rules and regulations contained in these documents.

The recommendations and conditions provided by the FPD include road construction standards and turn around areas to support fire apparatus, driveway construction requirements, defensible space requirements, the requirement of a fuel medication program approved by FPD, fire flow requirements, and gateway access requirements found in Titles 11, 12 and 15 of the Tuolumne County Ordinance Code and the California Fire Code.

Additionally, neither the Tuolumne County Fire Prevention Division nor CalFire indicated the need for the development of a new facility based on development of the proposed project.

Application and enforcement of the above-mentioned code requirements would reduce impacts related to fire hazard and fire protection, which would not require the provision of new or physically altered fire protection facilities. Therefore, there would be a less than significant impact.

See the Wildfire Section below for additional analysis.

#### Police Protection

The Tuolumne County Sheriff's Division was notified of the proposed project via mail on March 13, 2020. The Sheriff's Division did not provide a response on the project.

While the project itself will not create a significant impact for the Tuolumne County Sheriff to provide services, the cumulative impact of this project and others like it throughout the County have the potential to create an impact. The Tuolumne County Board of Supervisors has determined that projects of this type add incrementally to the cumulative impact on County-provided services. New construction for the first single-family dwelling on each parcel is required to pay a County Service Fee. This fee is due prior to the issuance of a Certificate of Occupancy by the Building and Safety Division of the CDD. No new law enforcement facilities would need to be constructed as a result of the project and there are no plans for construction of new police facilities within the County. Therefore, there would be a less than significant impact.

### Schools

Prior to the construction of any new single-family dwelling, the developer is required to pay school fees to their district. This fee is based on the square footage of the dwelling and is due prior to the issuance of a Certificate of Occupancy by the Building and Safety Division of the CDD. The current residential rate is \$2.12 a square foot for Columbia Elementary and \$1.36 a square foot for Sonora High. These fees are used to offset new construction of school facilities that may be required for increased student population. Payment of this required fee would result in a less than significant impact.

### Parks

The addition of 4 parcels with the potential of a total of 8 single-family dwelling and 4 ADUS would not substantially degrade existing recreational facilities or require additional facilities to be developed. There are a number of varying recreational opportunities located within the vicinity of the project site. The large parcel sizes would allow for adequate space for future property owners to utilize the property for personal recreational uses as accessory recreational uses are a permitted use within the AE-37 zoning district. Tentative Parcel Map T20-006 proposes to create four parcels. Therefore, the project is not subject to Section 16.26.120 of the TCOC which requires subdivisions that create 5 parcels or more to either dedicate land to be uses as public recreational facilities or pay an in-lieu fee. There would be a less than significant impact.

### Other Public Facilities

Other public facilities would include churches or other places of worship, hospitals, and government buildings. The project would allow the creation of 4 parcels and would potentially allow development of six additional primary single-family dwellings and four ADUs. The project will not significantly increase the demand to require development of new public facilities. Therefore, there is a less than significant impact.

**Mitigation Measures:** None Required

**Mitigation Monitoring:** Not Applicable

## **RECREATION:**

Issues and Supporting Information Sources	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact

### **Would the Proposed Project/Action:**

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?                       | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### **Environmental Setting:**

Tuolumne County has a variety of recreational opportunities for the public, including Yosemite National Park, Stanislaus National Forest, State parks, and other Federal and State government agencies such as the U.S. Bureau of Reclamation and the Bureau of Land Management. Community based recreation and park districts include the Tuolumne County Recreation Department and the City of Sonora Recreation Department. Tuolumne County operates and maintains approximately 341± acres of parks.

The nearest recreational facilities to the project site include Columbia State Park, the Heaven for Children playground and skatepark in Sonora, and Tuttletown Recreation Area. Columbia State Park offers hiking trails, picnic tables, museums and exhibits, and guided tours. The Heaven for Children playground offers a children's playground, skateboard park, and picnic and barbeque facilities. Tuttletown Recreation Area offers access to New Melones Reservoir, and includes camping facilities, a boat launch, day use area, and hiking trails.

### **Analysis:**

a,b) Implementation Program 8.D.b. of the Tuolumne County General Plan requires certain new residential development of five units or more to participate in the provision of recreational facilities for their residents. For residential subdivisions, the subdivider may propose to provide recreational facilities on site, pay an in-lieu recreation fee or dedicate land for public recreational facilities, or a combination of any or all of the three options for consideration by the Board of Supervisors, as indicated in Section 16.26.120 of the TCOC. Because the project includes the creation of 4 residential lots, the project is not subject to Implementation Program 8.D.b of the General Plan or Section 16.26.120. Therefore, the project applicant is not required to dedicate or pay fees for the purpose of providing park and recreational facilities.

The project is not expected to overburden existing recreational facilities and will not require the construction of new recreational facilities or the expansion of existing facilities. Therefore, there would be a less than significant impact.

**Mitigation Measures:** None Required.

**Mitigation Monitoring:** Not Applicable.

## **TRANSPORTATION:**

### Issues and Supporting Information Sources

#### **Would the Proposed Project/:**

	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### **Environmental Setting:**

Each of the parcels will be accessed via a common driveway off North Airport Road. The driveway will be developed to standards for use as a common driveway. The plans will be reviewed by the Engineering Division of the Department of Public Works. An Encroachment Permit would be required prior to work within the County road right-of-way

Public transit is provided by Tuolumne County Transit. Services are available in the mornings, afternoons, and evenings and are available five days a week. The nearest bus stop to the project site is located at Columbia State Park. Tuolumne County also has a “dial-a-ride” program available on demand for the route serving the area. There are no sidewalks or bike lanes in the project vicinity.

Goals, policies, and implementation programs regarding Tuolumne County’s circulation system, including transit, roadway, bicycle, and pedestrian facilities, are contained within the Transportation Element in Chapter 4 of the 2018 General Plan. The Regional Transportation Plan (RTP), adopted by the Tuolumne county Transportation Council (TCTC), acts as the planning document to guide transit investments within Tuolumne County for the next 5 years. In addition, the project has been reviewed for consistency with applicable road standards found in Titles 11 and 15 of the Tuolumne County Ordinance Code and the California Fire Code.

#### **Vehicle Miles Traveled**

On August 4, 2020, the Board of Supervisors adopted CEQA thresholds regarding vehicle miles traveled (VMT) as required by Senate Bill (SB) 743. As stated in the legislation, upon adoption of the new guidelines, “automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any.”

While this project was deemed complete prior to adoption of the VMT thresholds, this subject is still discussed in this report. The Board of Supervisors adopted screening criteria for projects- if a project meets any of the screening criteria, the project’s impacts on VMT would be less than significant. Included in this screening criteria is residential projects located within a low VMT area defined by Tuolumne County Transportation Council VMT maps.

In addition to analyzing a project’s VMT generation, the County also analyzes projects based on vehicle trips per day or Level of Service, as required in the Tuolumne County General Plan. A site-specific traffic study is

required when traffic generation for a project exceeds 500 vehicle trips per day or 50 trips during peak hours as indicated in the *Tuolumne County General Plan and Regional Transportation Plan Evaluation and Analysis*.

**Analysis:**

- a) Goals, policies, and implementation programs regarding Tuolumne County's circulation system, including transit, roadway, bicycle, and pedestrian facilities, and contained within the Transportation Element in Chapter 4 of the 2018 General Plan. Specific road design standards are found in Titles 11 and 15 of the Tuolumne County Ordinance Code. The following goals, policies, and implementation programs of the General Plan apply to the project:

**Policy 4.A.2:** *Dedicate, widen, and construct roads according to design and access standards generally defined in Chapter 4 of the General Plan Technical Background Report and, more specifically, the County Ordinance Code and the Countywide Traffic Circulation Improvement Program. Exceptions to these standards may be necessary and shall be approved by the Community Resources Agency Director, who shall ensure that safe and adequate public access and circulation are preserved by such exceptions.*

**Implementation Programs 4.A.e** - *Require that roadway rights-of-way be wide enough to accommodate the lanes needed to carry long-range forecasted traffic volumes, as well as planned bikeways, pedestrian and transit facilities and required drainage, utilities, landscaping, cuts and fills, and suitable separations. Minimum right-of-way criteria for each class of roadway are specified in Chapter 4 of the General Plan Technical Background Report and the County Ordinance Code.*

**Implementation Program 4.A.i** - *Maximize intersection spacing on arterial and collector roadways and thoroughfares and minimize driveway encroachments. Except where specific site conditions warrant, no new intersection of a local road or new driveway with an arterial or collector road shall be closer to an existing local road or driveway than 500 feet in rural areas or 200 feet within urban areas.*

The proposed common driveway construction and design will be reviewed for conformance with applicable road standards, including widths and shoulders, found in Titles 11 and 15 of the Tuolumne County Ordinance Code, Tuolumne County General Plan, and California Fire Code upon submittal of a grading plan and road improvement plan to the Engineering Division of the Public Works. The encroachment plan will be reviewed by the Engineering Division to ensure appropriate distances and standards are applied. The parcels will be accessed via a common driveway off North Airport Road, which will utilize the location of the existing driveway encroachment, supporting Implementation Program 4.A.i. The review by the Engineering Division will ensure that the project will be consistent with applicable program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, there is a less than significant impact.

**Implementation Program 4.A.p** - *Evaluate and analyze the traffic impacts of proposed land uses in relation to stated goals and objectives of the General Plan since growth policies regarding land use decisions directly affect the existing and future transportation system.*

**Implementation Program 4.A.q** - *Evaluate the impacts of new development on the County's transportation system and require such development to provide mitigation for its fair share of the impact.*

The County's threshold for requiring a Traffic Study is 500 vehicle trips per day or 50 trips at peak hours. The estimated traffic generation is 10 daily trips for each single-family dwelling and 7.4 trips for each ADU. A total of 8 primary single-family dwellings and 4 ADUs may be constructed on the parcel at maximum build out. Therefore, the project is estimated at generating 109.6 vehicle trips per day at full build out. The estimated traffic generation of the project is below the threshold and is therefore considered a less than significant impact.

- b) The site is located in an area where VMT per Capita is below the County Average. Because the project is in an area that is below the County average, it is classified as a “Low VMT” area on the TCTC VMT maps, and the project’s impacts on VMT are less than significant.
- c) The project will utilize the existing driveway layout and location to provide access to each of the proposed parcels. The driveway will be improved to common driveway standards and indicated in Title 11 of the TCOC. Turnouts and turnaround bulbs or hammerheads will be required to allow for emergency vehicle access. Conditions have been provided by the Tuolumne County Fire Prevention Division which will be made conditions of approval of the map. These conditions include requirement of turnouts at the midpoint of driveways between 150 feet and 800 feet in length or at 400 foot intervals for driveways over 800 feet in length (TCOC, Section 11.12.060), a turnaround bulb or circular driveway for any driveway over 300 feet in length (TCOC, Section 11.12.060 (C)), and limits on the maximum slope of driveways (TCOC Section 11.12.060.) The common driveway plans will be reviewed by the Engineering Division of the Department of Public Works and the Tuolumne County Fire Prevention Division to ensure compliance with these standards and to ensure that the roads will not introduce hazardous or incompatible design.

The project does not involve a change in use that would generate incompatible uses on the roadways. The use of the roadways would consist of mainly residential uses, with farming and ranching possible. Both residential and agricultural uses are permitted under the existing zoning and would not increase hazards or incompatible uses. Therefore, the impact would be less than significant.

- d) The proposed internal common driveway will be designed and constructed in accordance with all applicable regulations contained in Titles 11 and 15 of the Tuolumne County Ordinance Code and the California Fire Code to allow for sufficient emergency vehicle access, including width and clearance of the roadways, the surfacing of the roadways, and turnaround bulbs and hammerheads for emergency vehicles to be able to turn around. The Tuolumne County Fire Prevention Division reviewed the proposed project and provided conditions to ensure compliance with these requirements. These conditions have been incorporated into the projects’ conditions of approval. Therefore, there will be a less than significant impact.

**Mitigation Measures:** None required.

**Mitigation Monitoring:** Not applicable.

## **TRIBAL CULTURAL RESOURCES:**

### **Issues and Supporting Information Sources**

<i>Potentially Significant Impact</i>	<i>Less-than- Significant with Mitigation Incorporation</i>	<i>Less-than- Significant Impact</i>	<i>No Impact</i>
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Would the Proposed Project/Action:

Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- |  |                          |                                     |                          |                          |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a) 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 pursuant to Section 15064.5?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

### **Environmental Setting:**

A cultural resource study was prepared by Sierra Valley Cultural Planning in February 2017. The project site is located within the community of Columbia. Columbia was established during the California Gold Rush. The Solari family can be traced back to Pietro Solari, who immigrated from Italy in the 1850s or 1960s (Cultural Resource Assessment). By 1883, the Solari family moved to the town of Columbia, where they settled and opened a store (Cultural Resource Assessment).

The project site consists of modifications made in the Twentieth Century consisted of access roads, residential structures, and outbuildings. The Central Sierra Miwok settled in much of Tuolumne County are known to have lived in the area including the project site.

### **Regulatory Setting:**

CEQA requires lead agencies to consider whether projects will affect tribal cultural resources. PRC 21074 states the following:

- a) "Tribal cultural resources" are either of the following:
  - 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    - A) Included or determined to be eligible for inclusion in the CRHR.
    - B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
  - 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
- b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
- c) A historical resource described in Section 21084.1, a unique archaeological resource as defined

in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

AB 52, signed by the California Governor in September of 2014, establishes a new class of resources under CEQA: “tribal cultural resources.” It requires that lead agencies undertaking CEQA review must, upon written request of a California Native American tribe, begin consultation once the lead agency determines that the application for the project is complete, prior to the issuance of a notice of preparation of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration.

To date, two tribal entities have contacted the Tuolumne County Community Development Department to request formal consultation under the AB 52 process. The Chicken Ranch Rancheria of Me-Wuk Indians and Tuolumne Band of Me-Wuk Indians have requested formal consultation under the AB 52 process for projects subject to CEQA.

In accordance with Assembly Bill 52, formal consultation letters were sent to the contacts for the Chicken Ranch Rancheria of Me-Wuk Indians and Tuolumne Band of Me-Wuk Indians Tribes. AB 52 consultation letters were sent via certified mail on September 23, 2020. Informal project notification letters were sent to both Tribes on March 13, 2020 during the initial project notification period.

### **Analysis:**

- a,b) In accordance with Assembly Bill 52, formal consultation letters were sent to the contacts for the Chicken Ranch Rancheria of Me-Wuk Indians and Tuolumne Band of Me-Wuk Indians Tribes. AB 52 consultation letters were sent via certified mail on September 23, 2020. Informal project notification letters were sent to both Tribes on January 30, 2020 during the initial project notification period. To date, neither Tribe has responded to the proposed project or requested consultation.

As indicated in the “Cultural Resources” Section above, the project site contains cultural resources consisting of Native American resources. These resources were determined to be potentially eligible for listing and are therefore considered potentially significant. Mitigation Measure CUL-1 will ensure that these resources are protected with Open Space-1 zoning. Mitigation Measures CUL-2 and CUL-3 would ensure protection of resources that are potentially unearthed or discovered during construction activities.

Incorporation of Mitigation Measures CUL-1 through CUL-3 will result in a less than significant impact on Tribal Cultural Resources.

**Mitigation Measures:** See Cultural Resources section of this report.

**Mitigation Monitoring:** See Cultural Resources section of this report.



## **UTILITIES AND SERVICE SYSTEMS:**

### **Issues and Supporting Information Sources**

#### **Would the Proposed Project/Action:**

	<i>Potentially Significant Impact</i>	<i>Less-than- Significant With Mitigation Incorporation</i>	<i>Less-than- Significant Impact</i>	<i>No Impact</i>
a) Require or result in the relocation or construction of new or expanded water wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### **Environmental Setting:**

Water will be provided via private, on-site wells. Wastewater treatment will be provided via on-site septic systems.

Pacific Gas and Electric (PG&E) provides electric service to the project site. There is no natural gas consumption in Tuolumne County. There are existing telecommunications facilities that serve the area. Potential wireless internet providers include Xfinity, AT&T, Conifer Communications, Hughes Net and Cal.net. Cellular providers include Verizon and AT&T.

Cal Sierra Disposal Inc, which is owned by Waste Management, is responsible for garbage and recycling collection in the Sonora area and would provide weekly trash service to the site. Chapter 8.05 of the Tuolumne County Ordinance Code contains the County's regulations for refuse, rubbish, and recycling handling and storage. All of the solid waste generated within the County is processed at one of the transfer stations where solid waste is sorted to remove recyclables and hazardous materials from the waste stream. Residual waste is transported to the Highway 59 Landfill located in Merced. The maximum capacity of the Highway 59 Landfill is 30,012,352 cubic yards.

Cal Sierra Disposal operates a buy-back center at 14959 Camage Avenue, in East Sonora. Untreated wood and yard waste are presently accepted by Cal Sierra Disposal at its Earth Resources Facility located at 14909 Camage Avenue. Such material is accepted for a fee and is ground up or chipped and sold as compost or any other uses deemed appropriate for such material.

#### **Analysis:**

- a) The project site is already developed with electrical service provided by PG&E and telecommunication services present at the site. Electrical lines are present on site and would not require substantial expansion to provide electricity to each of the parcels. PG&E was notified in writing of the project but offered no written comments. Wireless internet and cellular service providers service the area, and no substantial expansions of service would be required to service the site. Wastewater treatment will be provided via private, on-site sewage disposal system. Storm water drainage is provided via natural drainages and channels. The project will not require the construction of new or expanded water

wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. Therefore, there will be a less than significant impact.

- b) The AE-37 zoning does not require connection to public water. The parcels are proposed to be served via private, on-site wells. Wells constructed on the site are required to be constructed and maintained in accordance with Chapter 13.16 of the TCOC. A well permit is required to be issued by the Environmental Health Division to verify conformance to applicable code sections and regulations. Two of the proposed parcels would be served by existing wells, so only two additional wells would need to be constructed to serve the project site. Conformance with Ordinance Code and applicable State and Federal regulations would result in a less than significant impact.
- c) The AE-37 zoning district does not require connection to public sewer. The project site will be served by private sewage disposal systems. Wastewater would be treated on-site through the use of a septic tank and leach field. The construction of any on-site sewage disposal system shall comply with Chapters 13.04 and 13.08 of the TCOC. Because the project will not connect to public sewer service, there will be no impact. See the Geology and Soils Section above for additional information on the septic system analysis.
- d,e) Cal Sierra Disposal Inc provides weekly trash service to the area and would dispose of waste at the Highway 59 Landfill. The Highway 59 Landfill is below its maximum capacity; therefore, there is capacity to serve the project. Any future construction on the project site or land use would be required to comply with all applicable Federal, State, and Local statutes and regulations related to solid waste. Conditions have been added to the project to ensure compliance with the provisions of Chapter 8.05 of the TCOC, which contains the County's regulations for the storage and handling of solid waste. Therefore, there would be a less than significant impact.

**Mitigation Measures:** None required.

**Mitigation Monitoring:** Not applicable.

## **WILDFIRE:**

### Issues and Supporting Information Sources

	Potentially Significant Impact	Less-than- Significant With Mitigation Incorporation	Less-than- Significant Impact	No Impact
<b>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Proposed Project:</b>				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## **Environmental Setting:**

In 2018, a Multi-Jurisdictional Hazard Mitigation Plan (Plan) for Tuolumne County was prepared to provide mitigation solutions to minimize each jurisdiction's vulnerability to the identified hazards and ultimately reduce both human and financial losses subsequent to a disaster. The Plan includes existing information on typical hazards, such as earthquakes, flooding, and fire, and provides risk assessments of each hazard and the potential for occurrence within the County. Specific wildland fire objectives provided in the Plan include vegetation management, code enforcement, GIS mapping, and compliance with the planning process.

Mitigation actions provided in the Plan range from improving water supply systems and conveyance systems for potential fire needs, initiating fuel thinning and chipping projects in high-priority areas, to updating existing and preparing new fire protection and evacuation plans. The Plan states that Tuolumne County Fire Protection District/CAL FIRE along with seven fire districts and one city fire department provide life and property emergency response. In addition to services traditionally provided by most fire protection agencies nationwide, these agencies work cooperatively with the U.S. Forest Service and the National Park Service in providing wildfire response in Tuolumne County. Although there are existing plans, programs, ordinances, and regulations in place within the County, wildland fire risks and the potential for future fire hazards occurring within the County is considered high (Tuolumne County 2018).

Tuolumne County does not have a static emergency plan or evacuation plan due to the dynamic nature of emergencies. In the event of an emergency, the Tuolumne County Sheriff Office is the responsible entity for declaring and directing evacuations in the case of emergencies. The Sheriff's Department will inform members of the public via the Emergency Notification System, local media, and door-to-door when feasible.

The project site is located within a State Responsibility Area (SRA) and is rated as high and very high fire hazard severity zone. This rating is based on factors of slope, vegetation, and annual summer weather patterns. These zones, referred to as Fire Hazard Severity Zones (FHSZ), provide the basis for application of various mitigation strategies to reduce risks to buildings associated with wildland fires. The zones also relate to the requirements for building codes designed to reduce the ignition potential to buildings in the wildland-urban interface zone.

## **Analysis:**

- a) Tuolumne County does not have a static emergency plan or evacuation plan due to the dynamic nature of emergencies. Tuolumne County does not have any designated evacuation routes because fires can

happen anywhere and may block specific roads and certain areas may not be safe for travel. The Tuolumne County Sheriff Office is the responsible entity for declaring and directing evacuations in the case of emergencies. The Sheriff's Department will inform members of the public via the Emergency Notification System, local media, and door-to-door when feasible of where the wildfire is located, which routes are safe to use, and which locations are safe to seek refuge from the fire. Generalized emergency information is also contained within the adopted Multi-Jurisdictional Hazard Mitigation Plan.

In an emergency, North Airport road would be utilized by residents of the project site. From there, residents could travel east towards Parrotts Ferry Road or south on Bennet Road towards State Route 49, depending on which route was the safest for travel. Parrotts Ferry is a major collector road which function as corridors for through traffic within local areas providing service to towns and other major traffic generators within the County. They also serve to link minor collectors and local access roads with nearby towns and communities or the arterial system. Highway 49 is a Principal Arterial which serve as major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas. There are a number of minor collector and local roads that may be utilized to get residents to the major collector and arterial roads in the vicinity. The addition of 4 residential lots with a potential for an additional 6 primary single-family dwellings and 4 ADUs would not significantly impact the ability for roads in the vicinity of the project site to be used as evacuation routes in the event of an emergency. Approval of this project would result in a less than significant impact on Tuolumne County's emergency or evacuation plans.

- b,c) The slopes as identified on the USGS Quadrangle maps range from approximately 0% in the east and center of the project site to approximately 60% in the western portion. Due to the location of the project site to existing roadways and other developed areas, it is unlikely that the project would exacerbate wildfire risks.

The project has been reviewed by the Tuolumne County Fire Prevention Division (FPD) for consistency with the National Fire Code, California Fire Code, California Building Code, the Tuolumne County General Plan and Ordinance Code. Any future development on the project site will be subject to the rules and regulations contained in these documents. Prior to the approval of the final map, the following conditions will be required to be met:

- The project site is located in an area that is rated as a very high fire hazard by the California Department of Forestry and Fire Protection (Cal Fire). The fire hazard shall be reduced through a fuel modification program approved by Tuolumne County Planning and Fire Prevention. The fuel modification program shall provide for the reduction of flammable vegetation by the thinning of brush, small trees, and the removal of piles of dead brush from the project site. The fuel modification plan shall be completed prior to the approval of the final map. (TCOC Section 15.20.060 & 16.08.030)
- The following statement shall be recorded on the final map: "Modification to Defensible Space Building Setbacks may be made prior to securing a Building Permit subject to approval of Tuolumne County Fire Prevention." (TCOC Section 15.20.060)
- All proposed access to the project shall be constructed to meet current road requirements. Fire apparatus access roads shall be provided, constructed, and maintained as follows: The roads shall be constructed to have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 15 feet. The roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities. All cul-de-sac roads shall terminate in a 40' radius turn bulb. (CFC Sections 503 TCOC Title 11)
- All streets shall be signed and identified at intersections to allow for speedy response of emergency equipment. All cul-de-sac roads shall be posted "Not a Through Road". (TCOC Sections 11.12.040 and 11.12.050)
- A letter shall be submitted by a licensed surveyor or registered civil engineer to the Engineering Development Division containing demonstrated proof that all driveways proposed to serve the

- project can be constructed from the access road to each building site or parcel to the standards specified in Title 11 of the Tuolumne County Ordinance Code. (TCOC Section 16.24.150(E)) All roads accessing the project site shall be cleared of flammable vegetation over 18 inches in height to a distance of 25 feet from the centerline of the road. (TCOC Section 15.20 and CFC Section 503)

Additional conditions have been identified by the FPD to address the requirements for construction and development of the driveways to serve the site and the residential gate. These conditions have been incorporated into the projects' conditions of approval. Once developed, each homeowner would be responsible for compliance with defensible space requirements as enforced by CalFire through annual property inspections.

**Policy 9.A.1:** *Actively involve fire protection agencies within Tuolumne County in land use planning decisions.*

The Tuolumne County Fire Prevention Division has been consulted with during the processing of the application. The Tuolumne County Fire Prevention Division provided conditions which have been incorporated into the projects' conditions of approval, as discussed above.

**Policy 9.E.3:** *Require new development to be consistent with State and County regulations and policies regarding fire protection.*

The development and operation of the site will be consistent with all applicable State and County regulations and policies regarding fire protection. Road and driveway improvement plans will be reviewed by the Tuolumne County Fire Prevention Division and Engineering Division of the Department of Public Works to ensure compliance with the California Fire Code and Titles 11 and 15 of the TCOC. All building permits will be reviewed for compliance with the California Building Code and Fire Code.

**Policy 17.E.2:** *Require the maintenance of defensible space setbacks in areas proposed for development if wildland fire hazards exist on adjacent properties.*

Conditions have been incorporated into the projects conditions of approval to require defensible space setbacks from all property boundaries and to require a fuel modification prior to approval of the Final Map.

**Policy 17.E.3:** *Require new development to have adequate fire protection and to include, where necessary, design and maintenance features that contribute to the protection of the County from the losses associated with wildland fire.*

Conditions provided by the Tuolumne County Fire Prevention Division have been incorporated into the projects' conditions of approval to minimize fire hazards and to contribute to the protection of the County from the losses associated with wildland fire.

The incorporation of these conditions and compliance with the National Fire Code, California Fire Code, California Building Code, the Tuolumne County General Plan, and Tuolumne County Ordinance Code would reduce the risk of wildfire and would not exacerbate wildfire risks or the risk of uncontrolled spread of wildfire. Project development would not require the installation or maintenance of associated infrastructure. Therefore, there would be a less than significant impact.

- d) As discussed under "Geology and Soils," and "Hydrology and Water Quality," runoff occurs naturally at the project site and flooding and landslide events are not common within the project area. Once operational, onsite drainage would not affect offsite drainage conditions, including runoff that naturally occurs north of the project site. The project site and surrounding areas have not been subject to burns

such that downslope areas would be affected by project development. Impacts would be less than significant.

**Mitigation Measures:** None required.

**Mitigation Monitoring:** Not applicable.

## **MANDATORY FINDINGS OF SIGNIFICANCE:**

### **Supporting Information Sources**

#### **Proposed Project/Action:**

a) Does the project 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?

☐
☒
☐
☐

b) Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative 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)?

☐
☐
☒
☐

c) does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

☐
☐
☒
☐

#### **Analysis:**

- a) As discussed under "Biological Resources," the project site provides suitable habitat for nesting birds and potentially for special-status plant species. Mitigation has been included that requires preconstruction surveys to identify the presence of these species, avoid or remove them from the construction area (if they are present), and establish disturbance buffers to ensure they are not disturbed during construction. The project site contains ephemeral drainages that conveys water through the; these features may be considered waters of the United States. However, project components would avoid this aquatic feature, with incorporation of mitigation measures to reduce impacts to a less than significant level. In addition, mitigation has been included to ensure the project does not affect riparian habitat, sensitive habitat, or special status species.

As discussed in the "Cultural Resources" section, several resources were identified, and mitigation is proposed to reduce impacts to those resources to a less than significant level. It is possible that previously unknown historical or archaeological resources could be discovered during grading and excavation work associated with project construction. Mitigation has been included that would ensure that the project would not result in adverse changes to historical or archaeological resources by requiring cessation of work and implementation of proper data recovery and/or preservation procedures upon discovery of previously unknown resources. Further, there is the potential for unmarked, previously unknown Native American or other graves to be present and be uncovered during construction activities. Mitigation has been included that would ensure that proper procedures would be followed in the event of the discovery of previously unknown human remains. For the reasons above, this would be a less-than-significant impact with mitigation incorporated.

- b) As discussed throughout the "Environmental Checklist," all potentially significant impacts would be reduced to a less-than-significant level with mitigation. In addition, aesthetic, biological resources, cultural and tribal cultural resources, greenhouse gas emissions, noise, and recreation impacts discussed above would result from temporary construction activities and would be limited to the immediate project site, and, therefore, would not combine with impacts from other past, present, and probable future development. Noise-related impacts are also localized and limited to the immediate project vicinity. Operation of the project would be limited a small increase in residential units in the area. The project's potential contribution to significant cumulative impacts would not be considerable and this

impact would be less than significant.

- c) As discussed above in the “Hazards and Hazardous Materials,” construction activities would require the use of hazardous materials such as fuels, lubricants, and solvents. However, all construction activities would be required to comply with existing regulations that would limit exposure of nearby sensitive receptors and construction workers to hazardous materials. Operation of the project would not include the use or storage of any hazardous material and would not result in adverse effects on people. This impact would be less than significant.

**Mitigation Measures:** See the Mitigation Monitoring and Reporting Program Table Below.

**Mitigation Monitoring:** See the Mitigation Monitoring and Reporting Program Table Below.



**Table 12: Mitigation Monitoring and Reporting Program**

Mitigation Measure	When Implemented	Monitored by	Verified by
<p><b>AES-1:</b> A lighting plan shall be submitted and approved by the Land Use and Natural Resources Division prior to the issuance of a building permit by the Building and Safety Division. Any exterior lighting shall incorporate the following features: direct the light downward to the area to be illuminated, install shields to direct light and reduce glare, utilize low rise light standards or fixtures attached to the buildings, and utilize low or high pressure sodium lamps instead of halogen type lights.</p>	<p>The submittal and approval of a lighting plan will be required prior to the issuance of a Building Permit issued by the Building and Safety Division of the Community Development Department. A Notice of Action will be recorded to advise future owners of the required mitigation measures and the responsibility to comply with said measures.</p>	<p>Tuolumne County Community Development Department (CDD)</p>	<p>Land Use and Natural Resources (LUNR) Division</p>
<p><b>BIO-1:</b> The property owner shall rezone the riparian and aquatic habitats to Open Space zoning as shown on the Open Space Exhibit Map in Figure 1 in the IS/MND. The Open Space zoning shall be approved by the Tuolumne County Board of Supervisors and shall be clearly shown on the final map.</p>	<p>The Open Space zoning shall be approved by the Board of Supervisors prior to the approval of the Final Map. A Notice of Action will be recorded to advise future owners of the required mitigation measures and the responsibility to comply with said measures.</p>	<p>CDD and Tuolumne County Department of Public Works (DPW)</p>	<p>LUNR and County Surveyor Division.</p>
<p><b>BIO-2:</b> For construction activities expected to occur during the nesting season of raptors (February 1 to August 31) and migratory birds, a pre-construction survey by a qualified biologist shall be conducted to determine if active nests are present on or within 500 feet of the project site where feasible. Areas that are inaccessible due to private property restrictions shall be surveyed using binoculars from the nearest vantage point. The survey shall be conducted by a qualified biologist no more than seven days prior to the onset of construction. If no active nests are identified during the pre-construction survey, no further mitigation is necessary. If construction activities begin prior to February 1, it is assumed that no birds will nest in the project site during active construction activities and no pre-construction surveys are required. If at any time during the nesting season construction stops for a period of two weeks or longer, pre-construction surveys shall be conducted prior to construction resuming.</p>	<p>The nesting bird surveys are required prior to ground disturbance or construction activities on site and would be verified prior to the issuance of a grading permit issued by the Department of Public Works or building permit issued by the Building and Safety Division. A Notice of Action will be recorded to advise future owners of the required mitigation measures and the responsibility to comply with said measures</p>	<p>CDD/ DPW</p>	<p>LUNR Division</p>

<p>If active nests are found on or within 500 feet of the project site, the applicant shall notify CDFW and explain any additional measures that a qualified biologist plans to implement to prevent or minimize disturbance to the nest while it is still active. Depending on the conditions specific to each nest, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned within the 500-foot buffer without impacting the breeding effort. Appropriate measures may include restricting construction activities within 500 feet of active raptor nests and having a qualified biologist with stop work authority monitor the nest for evidence that the behavior of the parents have changed during construction. Nests that are inaccessible due to private property restrictions shall be monitored using binoculars from the nearest vantage point. Appropriate measures would be implemented until the young have fledged or until a qualified biologist determines that the nest is no longer active. Construction activities may be halted at any time if, in the professional opinion of the biologist, construction activities are affecting the breeding effort.</p>			
<p><b>BIO-3:</b> In order to protect old growth oak trees on the project site (oak trees larger than 24 inches dbh), a tree removal plan prepared by a qualified consultant shall be submitted indicating any trees that will be removed that are larger than 24 inches dbh as a result of construction and development of each lot. The tree plan shall be required prior to the issuance of a building permit. If no old growth oaks are proposed to be removed, that information shall be included on the building permit submittal. If old growth oaks are to be removed, fees shall be submitted to mitigate for the removal of each heritage oak based on the following formula:</p> <p>Payment of in-lieu fees for replanting = OGOs x number of trees to be replanted x \$200.00</p> <p>The fees shall be paid into the Oak Woodlands Conservation Fund.</p>	<p>An oak tree removal plan shall be required prior to the issuance of a Building Permit issued by the Building and Safety Division. A Notice of Action will be recorded to advise future owners of the required mitigation measures and the responsibility to comply with said measures</p>	<p>CDD</p>	<p>LUNR Division</p>
<p><b>CUL-1:</b> Prior to the approval of the Final Map, Open</p>	<p>The Open Space shall be approved by the</p>	<p>CDD and</p>	<p>LUNR and</p>

<p>Space-1 zoning shall be established by the Tuolumne County Board of Supervisors around the Solari 5, 6, 8, 9, and 10 sites as identified by the study entitled "Cultural Resources Assessment 160.33-acre Solari Ranch (APN 032-120-40)10085 North Airport Road, Tuolumne County, California" prepared by Sierra Valley Cultural Planning in February 2017, as identified by the map on Page 17 of that report. The Open Space shall be clearly delineated on the Final Map.</p>	<p>Board of Supervisors prior to the approval of the final map. A Notice of Action will be recorded to advise future owners of the required mitigation measures and the responsibility to comply with said measures.</p>	<p>DPW</p>	<p>Surveyor Divisions.</p>
<p><b>CUL-2:</b> If a cultural resource is discovered during the activities authorized by this Permit, the person in possession of the parcel for which the permit was issued and all persons conducting any activity authorized by this permit shall comply with the following provisions:</p> <p>A. The person discovering the cultural resource shall notify the Community Development Department by telephone within 4 hours of the discovery or the next working day if the department is closed.</p> <p>B. When the cultural resource is located outside the area of disturbance, the Community Development Department shall be allowed to photo-document and record the resource and construction activities may continue during this process. On parcels of two or more gross acres, the area of disturbance includes building pads, septic areas, driveways, or utility lines, grading and vegetation removal, plus 300 feet.</p> <p>C. When the cultural resource is located within the area of disturbance, all activities that may impact the resource shall cease immediately upon discovery of the resource. All activity that does not affect the cultural resource as determined by the Community Development Department may continue. A qualified professional, as defined in Section 17.04.657 of the Tuolumne County Ordinance Code, such as an archaeologist or an historian, shall be allowed to conduct an evaluative survey to evaluate the significance of the cultural resource.</p> <p>D. When the cultural resource is determined to not be significant, the qualified professional or Community Development Department shall be</p>	<p>Shall be required during all ground disturbing activities on site. A Notice of Action will be recorded to advise future owners of the required mitigation measures and the responsibility to comply with said measures.</p>	<p>CDD</p>	<p>CDD</p>

<p>allowed to photo-document and record the resource. Construction activities may resume after authorization from the Community Development Department.</p> <p>When a resource is determined to be significant, or is determined to be eligible for listing, the resource shall be avoided with said resource having boundaries established around its perimeter by a qualified professional archaeologist or historian or a cultural resource management plan shall be prepared by a qualified professional to establish measures formulated and implemented in accordance with Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA) to address the effects of construction on the resource. Appropriate measures may include preserving the resource in place with Open Space, conservation easement, or capping the object. If avoidance is not possible, a qualified archaeologist shall prepare and implement a detailed treatment plan, which may consist of excavation of the site. The qualified professional shall be allowed to photo-document and record the resource. Construction activities may resume after authorization from the Community Development Department. All further activity authorized by this permit shall comply with the cultural resources management plan.</p>			
<p><b>CUL-3:</b> In the event of discovery of human remains during construction activities, all work shall immediately cease within 50 feet of the discovery. The Tuolumne County Coroner's office shall be called within 24 hours of the find to investigate the discovery. If the coroner determines that the remains are of Native American origin, the Native American Heritage Commission and a qualified archaeologist shall be notified within 48 hours. The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native who would make recommendations to the County for the appropriate means of treating the human remains and any associated funerary objects.</p>	<p>Shall be required during all ground disturbing activities on site. A Notice of Action will be recorded to advise future owners of the required mitigation measures and the responsibility to comply with said measures.</p>	CDD	CDD
<p><b>NOI-1:</b> Hours of exterior construction on the project site shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Saturday. Exterior construction shall be</p>	<p>An on-going condition which shall be monitored by citizen complaints. Confirmed violations will be referred to the Code Compliance Officer for</p>	CDD	CDD

prohibited on Sunday and County holidays.	processing consistent with established code compliance procedures outlined in Chapter 1.10 of the Ordinance Code. A Notice of Action will be recorded to advise future owners of the required mitigation measure and the responsibility to comply with said measure.										
<p><b>NOI-2:</b> The noise levels generated by the project shall be restricted to the following exterior noise limits as measured at the property line:</p> <table border="1"><thead><tr><th rowspan="2">Zoning Classification of Receiving Property</th><th colspan="2">Noise Level (dB) of Sound Source</th></tr><tr><th>Daytime (7 a.m. to 10 p.m.)</th><th>Nighttime (10 p.m. to 7 a.m.)</th></tr></thead><tbody><tr><td>MU, R-3, R-2, R-1, RE-1, RE-2, RE-3, RE-5, RE-10, C-O, C-1, C-S, BP</td><td>50 Leq. (1 hour)<sup>1</sup></td><td>45 Leq. (1 hour)<sup>1</sup></td></tr></tbody></table> <p><sup>1</sup>Leq. 1 hour refers to the average noise level measured over a one-hour period.</p>	Zoning Classification of Receiving Property	Noise Level (dB) of Sound Source		Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)	MU, R-3, R-2, R-1, RE-1, RE-2, RE-3, RE-5, RE-10, C-O, C-1, C-S, BP	50 Leq. (1 hour) <sup>1</sup>	45 Leq. (1 hour) <sup>1</sup>	An on-going condition which shall be monitored by citizen complaints. Confirmed violations will be referred to the Code Compliance Officer for processing consistent with established code compliance procedures outlined in Chapter 1.10 of the Ordinance Code. A Notice of Action will be recorded to advise future owners of the required mitigation measure and the responsibility to comply with said measure.	CDD	CDD
Zoning Classification of Receiving Property		Noise Level (dB) of Sound Source									
	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)									
MU, R-3, R-2, R-1, RE-1, RE-2, RE-3, RE-5, RE-10, C-O, C-1, C-S, BP	50 Leq. (1 hour) <sup>1</sup>	45 Leq. (1 hour) <sup>1</sup>									

## **AGENCIES CONTACTED:**

### **Tuolumne County:**

Community Development Department, Building and Safety Division  
Community Development Department, Environmental Health Division  
Department of Public Works, County Surveyor  
Department of Public Works, Engineering Division  
Department of Public Works, Solid Waste Division  
Department of Public Works, Roads  
Fire Department, Fire Prevention Division  
Sheriff's Department  
Sonora Union High School District  
Soulsbyville Elementary  
Superintendent of Schools  
Tuolumne County Transportation Council

### **State of California:**

Department of Fish and Wildlife  
Department of Forestry and Fire Protection  
Department of Highway Patrol  
Department of Transportation, Caltrans District 10  
Regional Water Quality Control Board

### **Other:**

AT&T  
Audubon Society  
Central Sierra Environmental Resource Center  
Chicken Ranch Rancheria of Me-Wuk Tribal Council  
Citizens for Responsible Growth  
Comcast Cable Communications  
Pacific Gas & Electric Company  
Sierra Club, Tuolumne Group  
Jamestown School District  
Sonora Union High School District  
Tuolumne County Association of Realtors  
Tuolumne County Farm Bureau  
Tuolumne Heritage Committee  
Tuolumne Me-Wuk Tribal Council  
Tuolumne Utilities District  
United States Fish and Wildlife Service  
U.S. Army Corp of Engineers  
U.S. Postal Service  
Willow Springs Homeowners Association

## **SOURCES REVIEWED:**

### **Tuolumne County:**

2018 General Plan  
EIR for the 2018 General Plan Update  
Zoning Ordinance (Title 17)  
Land Divisions Ordinance (Title 16)  
Road Standards (Title 11)  
Connecting Roadways (Chapter 12.04)  
Grading Ordinance (Chapter 12.20)  
Water and Sewers (Title 13)

Construction Codes (Chapter 15.04)  
Fire Code (Chapter 15.08)  
Fire Safety Standards (Chapter 15.20)  
Traffic Impact Mitigation Fees (Chapter 3.54)  
County Service Impact Mitigation Fees (Chapter 3.50)  
Rubbish, Refuse and Recyclables (8.05)  
Geotechnical Interpretive Maps  
General Plan Maps  
Wildlife Habitat Maps  
Tuolumne County Wildlife Handbook  
Wildlife Aerial Photography  
Fire Hazard Maps  
Deer Herd Maps  
Regional Transportation Plan  
Historic/Archeological Index to Studies

**Other:**

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California Energy Commission. 2015 (June 3). Impact Analysis 2016 Update to the California Energy Efficiency Standards for Residential and Nonresidential Buildings. Available: [http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/15-day\\_language/impact\\_analysis/2016\\_Impact\\_Analysis\\_2015-06-03.pdf](http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/15-day_language/impact_analysis/2016_Impact_Analysis_2015-06-03.pdf). Accessed July 23, 2018.

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California Environmental Quality Act

California Public Utilities Commission. 2018. California Renewables Portfolio Standard (RPS). Available: <https://www.cpuc.ca.gov/rps/>. Accessed September 9, 2020.

Census Bureau - Biannual Population Estimates, Department of Finance

Consulting Engineers and Land Surveyors of California: "2018 Planning and Zoning Law"

*Cultural Resources Assessment, 160.33-Acre Solari Ranch, 10085 North Airport Road, Tuolumne County, California*, C. Kristina Roper of Sierra Valley Cultural Planning, Three Rivers California, February 2017.

Federal Transit Administration. 2006 (May). *Transit Noise and Vibration Impact Assessment*. FTA-VA-90-1003-03. Washington, DC.

Natural Diversity Data Base Maps, Department of Fish & Wildlife

Office of Environmental Health Hazard Assessment. 2015 (February). *Air Toxics Hot Spots Program: Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments*. Available: <https://oehha.ca.gov/media/downloads/cmr/2015guidancemanual.pdf>. Accessed September 9, 2020.

*Tuolumne County Regional Blueprint Greenhouse Gas Study*, Rincon Consultants, Inc., San Luis Obispo, January 2012.

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**PREPARED BY:** Natalie Rizzi, Land Use Coordinator  
Quincy Yaley, AICP, Community Development Director  
Steve Gregory, Fire Prevention Bureau  
Dave Ruby, Department of Public Works  
Brian Bell, Chief Building Official

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## Appendix A:

## Solari T20-006 - Tuolumne County, Annual

**Solari T20-006**  
**Tuolumne County, Annual**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	10.00	Dwelling Unit	37.00	18,000.00	29

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	66
Climate Zone	1			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Lot acreage set to 37 acres per zoning

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	3.25	37.00

**2.0 Emissions Summary**

## Solari T20-006 - Tuolumne County, Annual

**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3282	3.3284	2.2869	4.2700e-003	0.6077	0.1541	0.7618	0.2869	0.1423	0.4292	0.0000	374.5912	374.5912	0.1130	0.0000	377.4161
2022	0.2270	2.0493	2.1640	3.5800e-003	4.9500e-003	0.1053	0.1102	1.3400e-003	0.0990	0.1004	0.0000	308.2480	308.2480	0.0726	0.0000	310.0617
2023	0.2093	1.8865	2.1439	3.5800e-003	4.9500e-003	0.0910	0.0960	1.3400e-003	0.0857	0.0870	0.0000	308.1749	308.1749	0.0720	0.0000	309.9753
2024	0.2220	1.6187	2.0801	3.4100e-003	7.0700e-003	0.0742	0.0813	1.8000e-003	0.0696	0.0715	0.0000	294.6400	294.6400	0.0728	0.0000	296.4606
2025	0.2448	0.0270	0.0435	7.0000e-005	1.9000e-004	1.2100e-003	1.4000e-003	5.0000e-005	1.2100e-003	1.2600e-003	0.0000	6.1488	6.1488	3.4000e-004	0.0000	6.1572
Maximum	0.3282	3.3284	2.2869	4.2700e-003	0.6077	0.1541	0.7618	0.2869	0.1423	0.4292	0.0000	374.5912	374.5912	0.1130	0.0000	377.4161

## Solari T20-006 - Tuolumne County, Annual

## 2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3282	3.3284	2.2869	4.2700e-003	0.6077	0.1541	0.7618	0.2869	0.1423	0.4292	0.0000	374.5908	374.5908	0.1130	0.0000	377.4157
2022	0.2270	2.0493	2.1640	3.5800e-003	4.9500e-003	0.1053	0.1102	1.3400e-003	0.0990	0.1004	0.0000	308.2477	308.2477	0.0728	0.0000	310.0614
2023	0.2093	1.8865	2.1439	3.5800e-003	4.9500e-003	0.0910	0.0960	1.3400e-003	0.0857	0.0870	0.0000	308.1745	308.1745	0.0720	0.0000	309.9750
2024	0.2220	1.6187	2.0601	3.4100e-003	7.0700e-003	0.0742	0.0813	1.8000e-003	0.0696	0.0715	0.0000	294.6397	294.6397	0.0728	0.0000	296.4602
2025	0.2448	0.0270	0.0435	7.0000e-005	1.9000e-004	1.2100e-003	1.4000e-003	5.0000e-005	1.2100e-003	1.2600e-003	0.0000	6.1488	6.1488	3.4000e-004	0.0000	6.1572
Maximum	0.3282	3.3284	2.2869	4.2700e-003	0.6077	0.1541	0.7618	0.2869	0.1423	0.4292	0.0000	374.5908	374.5908	0.1130	0.0000	377.4157

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-30-2021	7-29-2021	1.2062	1.2062
2	7-30-2021	10-29-2021	1.6266	1.6266
3	10-30-2021	1-29-2022	1.0026	1.0026
4	1-30-2022	4-29-2022	0.5629	0.5629
5	4-30-2022	7-29-2022	0.5689	0.5689
6	7-30-2022	10-29-2022	0.5753	0.5753

## Solari T20-006 - Tuolumne County, Annual

7	10-30-2022	1-29-2023	0.5612	0.5612
8	1-30-2023	4-29-2023	0.5183	0.5183
9	4-30-2023	7-29-2023	0.5238	0.5238
10	7-30-2023	10-29-2023	0.5297	0.5297
11	10-30-2023	1-29-2024	0.5190	0.5190
12	1-30-2024	4-29-2024	0.4899	0.4899
13	4-30-2024	7-29-2024	0.4897	0.4897
14	7-30-2024	10-29-2024	0.4548	0.4548
15	10-30-2024	1-29-2025	0.3652	0.3652
16	1-30-2025	4-29-2025	0.1487	0.1487
		Highest	1.6266	1.6266

## 2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7282	0.0131	0.8489	1.4100e-003		0.1090	0.1090		0.1090	0.1090	10.3296	4.4534	14.7829	9.8500e-003	8.1000e-004	15.2863
Energy	6.5000e-004	5.5800e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	31.7089	31.7089	1.2700e-003	3.5000e-004	31.8482
Mobile	0.0601	0.2016	0.6963	1.2300e-003	0.0989	1.6000e-003	0.1005	0.0266	1.5000e-003	0.0281	0.0000	111.2951	111.2951	7.0200e-003	0.0000	111.4705
Waste						0.0000	0.0000		0.0000	0.0000	1.4717	0.0000	1.4717	0.0970	0.0000	3.6460
Water						0.0000	0.0000		0.0000	0.0000	0.2067	1.4438	1.6505	0.0213	5.1000e-004	2.3363
Total	0.7889	0.2203	1.5375	2.6800e-003	0.0989	0.1111	0.2100	0.0266	0.1110	0.1376	12.0080	148.9011	160.9091	0.1262	1.6700e-003	164.5654

## Solari T20-006 - Tuolumne County, Annual

**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7282	0.0131	0.9489	1.4100e-003		0.1090	0.1090		0.1090	0.1090	10.3296	4.4534	14.7829	9.6500e-003	8.1000e-004	15.2663
Energy	6.5000e-004	5.5800e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	31.7089	31.7089	1.2700e-003	3.5000e-004	31.8482
Mobile	0.0601	0.2016	0.6863	1.2300e-003	0.0989	1.6000e-003	0.1005	0.0266	1.5000e-003	0.0281	0.0000	111.2951	111.2951	7.0200e-003	0.0000	111.4705
Waste						0.0000	0.0000		0.0000	0.0000	1.4717	0.0000	1.4717	0.0870	0.0000	3.6460
Water						0.0000	0.0000		0.0000	0.0000	0.2067	1.4438	1.6505	0.0213	5.1000e-004	2.3363
Total	0.7889	0.2203	1.5375	2.6800e-003	0.0989	0.1111	0.2100	0.0266	0.1110	0.1376	12.0080	148.9011	160.9091	0.1262	1.6700e-003	164.5654

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/30/2021	7/8/2021	5	50	
2	Site Preparation	Site Preparation	7/9/2021	8/19/2021	5	30	
3	Grading	Grading	8/20/2021	12/2/2021	5	75	
4	Building Construction	Building Construction	12/3/2021	10/3/2024	5	740	
5	Paving	Paving	10/4/2024	12/19/2024	5	55	
6	Architectural Coating	Architectural Coating	12/20/2024	3/6/2025	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 36,450; Residential Outdoor: 12,150; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0  
(Architectural Coating – sqft)

OffRoad Equipment

## Solari T20-006 - Tuolumne County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT



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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	4.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

## 3.1 Mitigation Measures Construction

## 3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0791	0.7860	0.5391	9.7000e-004		0.0388	0.0388		0.0360	0.0360	0.0000	85.0020	85.0020	0.0239	0.0000	85.6001
Total	0.0791	0.7860	0.5391	9.7000e-004		0.0388	0.0388		0.0360	0.0360	0.0000	85.0020	85.0020	0.0239	0.0000	85.6001

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**3.2 Demolition - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5500e-003	2.7500e-003	0.0256	3.0000e-005	2.9600e-003	3.0000e-005	2.9900e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	2.7367	2.7367	2.3000e-004	0.0000	2.7424
Total	3.5500e-003	2.7500e-003	0.0256	3.0000e-005	2.9600e-003	3.0000e-005	2.9900e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	2.7367	2.7367	2.3000e-004	0.0000	2.7424

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0791	0.7860	0.5391	9.7000e-004		0.0388	0.0388		0.0360	0.0360	0.0000	85.0019	85.0019	0.0239	0.0000	85.6000
Total	0.0791	0.7860	0.5391	9.7000e-004		0.0388	0.0388		0.0360	0.0360	0.0000	85.0019	85.0019	0.0239	0.0000	85.6000

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## 3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5500e-003	2.7500e-003	0.0256	3.0000e-005	2.9600e-003	3.0000e-005	2.9900e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	2.7367	2.7367	2.3000e-004	0.0000	2.7424
Total	3.5500e-003	2.7500e-003	0.0256	3.0000e-005	2.9600e-003	3.0000e-005	2.9900e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	2.7367	2.7367	2.3000e-004	0.0000	2.7424

## 3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0583	0.6075	0.3173	5.7000e-004		0.0307	0.0307		0.0282	0.0282	0.0000	50.1536	50.1536	0.0162	0.0000	50.5591
Total	0.0583	0.6075	0.3173	5.7000e-004	0.2710	0.0307	0.3017	0.1490	0.0282	0.1772	0.0000	50.1536	50.1536	0.0162	0.0000	50.5591

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**3.3 Site Preparation - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5600e-003	1.9800e-003	0.0184	2.0000e-005	2.1300e-003	2.0000e-005	2.1500e-003	5.7000e-004	2.0000e-005	5.9000e-004	0.0000	1.9704	1.9704	1.7000e-004	0.0000	1.9746
<b>Total</b>	<b>2.5600e-003</b>	<b>1.9800e-003</b>	<b>0.0184</b>	<b>2.0000e-005</b>	<b>2.1300e-003</b>	<b>2.0000e-005</b>	<b>2.1500e-003</b>	<b>5.7000e-004</b>	<b>2.0000e-005</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>1.9704</b>	<b>1.9704</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.9746</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0583	0.6075	0.3173	5.7000e-004		0.0307	0.0307		0.0282	0.0282	0.0000	50.1535	50.1535	0.0162	0.0000	50.5590
<b>Total</b>	<b>0.0583</b>	<b>0.6075</b>	<b>0.3173</b>	<b>5.7000e-004</b>	<b>0.2710</b>	<b>0.0307</b>	<b>0.3017</b>	<b>0.1490</b>	<b>0.0282</b>	<b>0.1772</b>	<b>0.0000</b>	<b>50.1535</b>	<b>50.1535</b>	<b>0.0162</b>	<b>0.0000</b>	<b>50.5590</b>

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**3.3 Site Preparation - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5600e-003	1.9800e-003	0.0184	2.0000e-005	2.1300e-003	2.0000e-005	2.1500e-003	5.7000e-004	2.0000e-005	5.9000e-004	0.0000	1.9704	1.9704	1.7000e-004	0.0000	1.9746
Total	2.5600e-003	1.9800e-003	0.0184	2.0000e-005	2.1300e-003	2.0000e-005	2.1500e-003	5.7000e-004	2.0000e-005	5.9000e-004	0.0000	1.9704	1.9704	1.7000e-004	0.0000	1.9746

**3.4 Grading - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1572	1.7400	1.1579	2.3300e-003		0.0745	0.0745		0.0685	0.0685	0.0000	204.3562	204.3562	0.0661	0.0000	206.0085
Total	0.1572	1.7400	1.1579	2.3300e-003	0.3253	0.0745	0.3997	0.1349	0.0685	0.2034	0.0000	204.3562	204.3562	0.0661	0.0000	206.0085

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## 3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-003	5.4900e-003	0.0512	6.0000e-005	5.9200e-003	7.0000e-005	5.9900e-003	1.5700e-003	6.0000e-005	1.6400e-003	0.0000	5.4734	5.4734	4.6000e-004	0.0000	5.4849
Total	7.1000e-003	5.4900e-003	0.0512	6.0000e-005	5.9200e-003	7.0000e-005	5.9900e-003	1.5700e-003	6.0000e-005	1.6400e-003	0.0000	5.4734	5.4734	4.6000e-004	0.0000	5.4849

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1572	1.7400	1.1579	2.3300e-003		0.0745	0.0745		0.0685	0.0685	0.0000	204.3559	204.3559	0.0661	0.0000	206.0083
Total	0.1572	1.7400	1.1579	2.3300e-003	0.3253	0.0745	0.3997	0.1349	0.0685	0.2034	0.0000	204.3559	204.3559	0.0661	0.0000	206.0083

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## 3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-003	5.4900e-003	0.0512	6.0000e-005	5.9200e-003	7.0000e-005	5.9900e-003	1.5700e-003	6.0000e-005	1.6400e-003	0.0000	5.4734	5.4734	4.6000e-004	0.0000	5.4849
Total	7.1000e-003	5.4900e-003	0.0512	6.0000e-005	5.9200e-003	7.0000e-005	5.9900e-003	1.5700e-003	6.0000e-005	1.6400e-003	0.0000	5.4734	5.4734	4.6000e-004	0.0000	5.4849

## 3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0200	0.1830	0.1740	2.8000e-004		0.0101	0.0101		9.4600e-003	9.4600e-003	0.0000	24.3219	24.3219	5.8700e-003	0.0000	24.4686
Total	0.0200	0.1830	0.1740	2.8000e-004		0.0101	0.0101		9.4600e-003	9.4600e-003	0.0000	24.3219	24.3219	5.8700e-003	0.0000	24.4686

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**3.5 Building Construction - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	1.3400e-003	4.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2706	0.2706	1.0000e-005	0.0000	0.2708
Worker	4.0000e-004	3.1000e-004	2.8700e-003	0.0000	3.3000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3065	0.3065	3.0000e-005	0.0000	0.3072
Total	4.5000e-004	1.6500e-003	3.3500e-003	0.0000	4.0000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.5771	0.5771	4.0000e-005	0.0000	0.5780

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0200	0.1830	0.1740	2.8000e-004		0.0101	0.0101		9.4600e-003	9.4600e-003	0.0000	24.3219	24.3219	5.8700e-003	0.0000	24.4686
Total	0.0200	0.1830	0.1740	2.8000e-004		0.0101	0.0101		9.4600e-003	9.4600e-003	0.0000	24.3219	24.3219	5.8700e-003	0.0000	24.4686



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**3.5 Building Construction - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	1.3400e-003	4.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2706	0.2706	1.0000e-005	0.0000	0.2708
Worker	4.0000e-004	3.1000e-004	2.8700e-003	0.0000	3.3000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3065	0.3065	3.0000e-005	0.0000	0.3072
Total	4.5000e-004	1.6500e-003	3.3500e-003	0.0000	4.0000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.5771	0.5771	4.0000e-005	0.0000	0.5780

**3.5 Building Construction - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471

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**3.5 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.8000e-004	0.0159	5.2900e-003	4.0000e-005	8.5000e-004	5.0000e-005	9.0000e-004	2.4000e-004	5.0000e-005	3.0000e-004	0.0000	3.3339	3.3339	1.0000e-004	0.0000	3.3363
Worker	4.6400e-003	3.4400e-003	0.0315	4.0000e-005	4.1000e-003	4.0000e-005	4.1500e-003	1.0900e-003	4.0000e-005	1.1300e-003	0.0000	3.6714	3.6714	2.8000e-004	0.0000	3.6784
Total	5.2300e-003	0.0193	0.0368	8.0000e-005	4.9500e-003	9.0000e-005	5.0500e-003	1.3300e-003	9.0000e-005	1.4300e-003	0.0000	7.0052	7.0052	3.8000e-004	0.0000	7.0147

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467

## Solari T20-006 - Tuolumne County, Annual

**3.5 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.8000e-004	0.0159	5.2900e-003	4.0000e-005	8.5000e-004	5.0000e-005	9.0000e-004	2.4000e-004	5.0000e-005	3.0000e-004	0.0000	3.3339	3.3339	1.0000e-004	0.0000	3.3363
Worker	4.6400e-003	3.4400e-003	0.0315	4.0000e-005	4.1000e-003	4.0000e-005	4.1500e-003	1.0900e-003	4.0000e-005	1.1300e-003	0.0000	3.6714	3.6714	2.8000e-004	0.0000	3.6784
Total	5.2300e-003	0.0193	0.0368	8.0000e-005	4.9500e-003	9.0000e-005	5.0500e-003	1.3300e-003	9.0000e-005	1.4300e-003	0.0000	7.0052	7.0052	3.8000e-004	0.0000	7.0147

**3.5 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

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**3.5 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.8000e-004	0.0134	4.7200e-003	3.0000e-005	8.5000e-004	3.0000e-005	8.8000e-004	2.4000e-004	3.0000e-005	2.8000e-004	0.0000	3.2844	3.2844	9.0000e-005	0.0000	3.2866
Worker	4.3500e-003	3.0800e-003	0.0275	4.0000e-005	4.1000e-003	4.0000e-005	4.1400e-003	1.0900e-003	4.0000e-005	1.1300e-003	0.0000	3.5443	3.5443	2.5000e-004	0.0000	3.5505
Total	4.8400e-003	0.0165	0.0322	7.0000e-005	4.9500e-003	7.0000e-005	5.0200e-003	1.3300e-003	7.0000e-005	1.4100e-003	0.0000	6.8287	6.8287	3.4000e-004	0.0000	6.8370

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

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**3.5 Building Construction - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.8000e-004	0.0134	4.7200e-003	3.0000e-005	8.5000e-004	3.0000e-005	8.8000e-004	2.4000e-004	3.0000e-005	2.8000e-004	0.0000	3.2844	3.2844	9.0000e-005	0.0000	3.2866
Worker	4.3500e-003	3.0800e-003	0.0275	4.0000e-005	4.1000e-003	4.0000e-005	4.1400e-003	1.0900e-003	4.0000e-005	1.1300e-003	0.0000	3.5443	3.5443	2.5000e-004	0.0000	3.5505
Total	4.8400e-003	0.0165	0.0322	7.0000e-005	4.9500e-003	7.0000e-005	5.0200e-003	1.3300e-003	7.0000e-005	1.4100e-003	0.0000	6.8287	6.8287	3.4000e-004	0.0000	6.8370

**3.5 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1464	1.3377	1.6086	2.6800e-003		0.0610	0.0610		0.0574	0.0574	0.0000	230.6899	230.6899	0.0546	0.0000	232.0537
Total	0.1464	1.3377	1.6086	2.6800e-003		0.0610	0.0610		0.0574	0.0574	0.0000	230.6899	230.6899	0.0546	0.0000	232.0537

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**3.5 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5000e-004	9.9100e-003	3.3600e-003	3.0000e-005	6.5000e-004	2.0000e-005	6.7000e-004	1.9000e-004	2.0000e-005	2.1000e-004	0.0000	2.5052	2.5052	6.0000e-005	0.0000	2.5068
Worker	3.1200e-003	2.1200e-003	0.0189	3.0000e-005	3.1400e-003	3.0000e-005	3.1700e-003	8.4000e-004	3.0000e-005	8.6000e-004	0.0000	2.6146	2.6146	1.6000e-004	0.0000	2.6187
Total	3.4700e-003	0.0120	0.0223	6.0000e-005	3.7900e-003	5.0000e-005	3.8400e-003	1.0300e-003	5.0000e-005	1.0700e-003	0.0000	5.1198	5.1198	2.2000e-004	0.0000	5.1255

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1464	1.3377	1.6086	2.6800e-003		0.0610	0.0610		0.0574	0.0574	0.0000	230.6896	230.6896	0.0546	0.0000	232.0534
Total	0.1464	1.3377	1.6086	2.6800e-003		0.0610	0.0610		0.0574	0.0574	0.0000	230.6896	230.6896	0.0546	0.0000	232.0534

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**3.5 Building Construction - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5000e-004	9.9100e-003	3.3600e-003	3.0000e-005	6.5000e-004	2.0000e-005	6.7000e-004	1.9000e-004	2.0000e-005	2.1000e-004	0.0000	2.5052	2.5052	6.0000e-005	0.0000	2.5068
Worker	3.1200e-003	2.1200e-003	0.0189	3.0000e-005	3.1400e-003	3.0000e-005	3.1700e-003	8.4000e-004	3.0000e-005	8.6000e-004	0.0000	2.6146	2.6146	1.6000e-004	0.0000	2.6187
Total	3.4700e-003	0.0120	0.0223	6.0000e-005	3.7900e-003	5.0000e-005	3.8400e-003	1.0300e-003	5.0000e-005	1.0700e-003	0.0000	5.1198	5.1198	2.2000e-004	0.0000	5.1255

**3.6 Paving - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0272	0.2619	0.4022	6.3000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	55.0730	55.0730	0.0178	0.0000	55.5183
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0272	0.2619	0.4022	6.3000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	55.0730	55.0730	0.0178	0.0000	55.5183

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## 3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2400e-003	2.2000e-003	0.0196	3.0000e-005	3.2600e-003	3.0000e-005	3.2900e-003	8.7000e-004	3.0000e-005	8.9000e-004	0.0000	2.7098	2.7098	1.7000e-004	0.0000	2.7141
Total	3.2400e-003	2.2000e-003	0.0196	3.0000e-005	3.2600e-003	3.0000e-005	3.2900e-003	8.7000e-004	3.0000e-005	8.9000e-004	0.0000	2.7098	2.7098	1.7000e-004	0.0000	2.7141

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0272	0.2619	0.4022	6.3000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	55.0729	55.0729	0.0178	0.0000	55.5182
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0272	0.2619	0.4022	6.3000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	55.0729	55.0729	0.0178	0.0000	55.5182



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## 3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2400e-003	2.2000e-003	0.0196	3.0000e-005	3.2600e-003	3.0000e-005	3.2900e-003	8.7000e-004	3.0000e-005	8.9000e-004	0.0000	2.7098	2.7098	1.7000e-004	0.0000	2.7141
Total	3.2400e-003	2.2000e-003	0.0196	3.0000e-005	3.2600e-003	3.0000e-005	3.2900e-003	8.7000e-004	3.0000e-005	8.9000e-004	0.0000	2.7098	2.7098	1.7000e-004	0.0000	2.7141

## 3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2000e-004	4.8800e-003	7.2400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	1.0213	1.0213	6.0000e-005	0.0000	1.0227
Total	0.0417	4.8800e-003	7.2400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	1.0213	1.0213	6.0000e-005	0.0000	1.0227

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**3.7 Architectural Coating - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	1.9000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0263	0.0263	0.0000	0.0000	0.0263
Total	3.0000e-005	2.0000e-005	1.9000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0263	0.0263	0.0000	0.0000	0.0263

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2000e-004	4.8800e-003	7.2400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	1.0213	1.0213	6.0000e-005	0.0000	1.0227
Total	0.0417	4.8800e-003	7.2400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	1.0213	1.0213	6.0000e-005	0.0000	1.0227

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**3.7 Architectural Coating - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	1.9000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0263	0.0263	0.0000	0.0000	0.0263
Total	3.0000e-005	2.0000e-005	1.9000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0263	0.0263	0.0000	0.0000	0.0263

**3.7 Architectural Coating - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2408					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0200e-003	0.0269	0.0425	7.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	6.0002	6.0002	3.3000e-004	0.0000	6.0083
Total	0.2448	0.0269	0.0425	7.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	6.0002	6.0002	3.3000e-004	0.0000	6.0083

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**3.7 Architectural Coating - 2025****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.1000e-004	1.0200e-003	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1487	0.1487	1.0000e-005	0.0000	0.1489
Total	1.7000e-004	1.1000e-004	1.0200e-003	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1487	0.1487	1.0000e-005	0.0000	0.1489

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2408					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0200e-003	0.0269	0.0425	7.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	6.0001	6.0001	3.3000e-004	0.0000	6.0083
Total	0.2448	0.0269	0.0425	7.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	6.0001	6.0001	3.3000e-004	0.0000	6.0083

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**3.7 Architectural Coating - 2025****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.1000e-004	1.0200e-003	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1487	0.1487	1.0000e-005	0.0000	0.1489
Total	1.7000e-004	1.1000e-004	1.0200e-003	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1487	0.1487	1.0000e-005	0.0000	0.1489

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0601	0.2016	0.6963	1.2300e-003	0.0999	1.6000e-003	0.1005	0.0266	1.5000e-003	0.0281	0.0000	111.2951	111.2951	7.0200e-003	0.0000	111.4705
Unmitigated	0.0601	0.2016	0.6963	1.2300e-003	0.0999	1.6000e-003	0.1005	0.0266	1.5000e-003	0.0281	0.0000	111.2951	111.2951	7.0200e-003	0.0000	111.4705

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	95.20	99.10	86.20	265,298	265,298
Total	95.20	99.10	86.20	265,298	265,298

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	37.30	20.70	42.00	86	11	3

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.483457	0.047842	0.208016	0.157307	0.049674	0.007506	0.019049	0.011796	0.003290	0.001259	0.006861	0.001784	0.002160

## 5.0 Energy Detail

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 Historical Energy Use: N

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## 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	25.2430	25.2430	1.1400e-003	2.4000e-004	25.3419
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	25.2430	25.2430	1.1400e-003	2.4000e-004	25.3419
NaturalGas Mitigated	6.5000e-004	5.5800e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4658	6.4658	1.2000e-004	1.2000e-004	6.5043
NaturalGas Unmitigated	6.5000e-004	5.5800e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4658	6.4658	1.2000e-004	1.2000e-004	6.5043

## 5.2 Energy by Land Use - NaturalGas

## Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	121165	6.5000e-004	5.5800e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4658	6.4658	1.2000e-004	1.2000e-004	6.5043
Total		6.5000e-004	5.5800e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4658	6.4658	1.2000e-004	1.2000e-004	6.5043

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**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	121165	6.5000e-004	5.5800e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4658	6.4658	1.2000e-004	1.2000e-004	6.5043
Total		6.5000e-004	5.5800e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4658	6.4658	1.2000e-004	1.2000e-004	6.5043

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	86772.2	25.2430	1.1400e-003	2.4000e-004	25.3419
Total		25.2430	1.1400e-003	2.4000e-004	25.3419



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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	86772.2	25.2430	1.1400e-003	2.4000e-004	25.3419
<b>Total</b>		<b>25.2430</b>	<b>1.1400e-003</b>	<b>2.4000e-004</b>	<b>25.3419</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7282	0.0131	0.8489	1.4100e-003		0.1090	0.1090		0.1090	0.1090	10.3296	4.4534	14.7829	9.8500e-003	8.1000e-004	15.2663
Unmitigated	0.7282	0.0131	0.8489	1.4100e-003		0.1090	0.1090		0.1090	0.1090	10.3296	4.4534	14.7829	9.8500e-003	8.1000e-004	15.2663

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## 6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0703					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.6275	0.0123	0.7745	1.4000e-003		0.1086	0.1086		0.1086	0.1086	10.3296	4.3321	14.6617	9.5300e-003	8.1000e-004	15.1421
Landscaping	2.2500e-003	8.6000e-004	0.0743	0.0000		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.1213	0.1213	1.2000e-004	0.0000	0.1242
<b>Total</b>	<b>0.7282</b>	<b>0.0131</b>	<b>0.8489</b>	<b>1.4000e-003</b>		<b>0.1090</b>	<b>0.1090</b>		<b>0.1090</b>	<b>0.1090</b>	<b>10.3296</b>	<b>4.4534</b>	<b>14.7829</b>	<b>9.6500e-003</b>	<b>8.1000e-004</b>	<b>15.2663</b>

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**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0703					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.6275	0.0123	0.7745	1.4000e-003		0.1086	0.1086		0.1086	0.1086	10.3296	4.3321	14.6617	9.5300e-003	8.1000e-004	15.1421
Landscaping	2.2500e-003	8.6000e-004	0.0743	0.0000		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.1213	0.1213	1.2000e-004	0.0000	0.1242
<b>Total</b>	<b>0.7282</b>	<b>0.0131</b>	<b>0.8489</b>	<b>1.4000e-003</b>		<b>0.1090</b>	<b>0.1090</b>		<b>0.1090</b>	<b>0.1090</b>	<b>10.3296</b>	<b>4.4534</b>	<b>14.7829</b>	<b>9.6500e-003</b>	<b>8.1000e-004</b>	<b>15.2663</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.8505	0.0213	5.1000e-004	2.3363
Unmitigated	1.8505	0.0213	5.1000e-004	2.3363

## 7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.65154 / 0.410754	1.8505	0.0213	5.1000e-004	2.3363
Total		1.8505	0.0213	5.1000e-004	2.3363

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**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.65154 / 0.410754	1.6505	0.0213	5.1000e-004	2.3363
Total		1.6505	0.0213	5.1000e-004	2.3363

**8.0 Waste Detail****8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.4717	0.0870	0.0000	3.6460
Unmitigated	1.4717	0.0870	0.0000	3.6460

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**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	7.25	1.4717	0.0870	0.0000	3.6460
<b>Total</b>		<b>1.4717</b>	<b>0.0870</b>	<b>0.0000</b>	<b>3.6460</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	7.25	1.4717	0.0870	0.0000	3.6460
<b>Total</b>		<b>1.4717</b>	<b>0.0870</b>	<b>0.0000</b>	<b>3.6460</b>

**9.0 Operational Offroad**


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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## 10.0 Stationary Equipment

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### Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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### Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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### User Defined Equipment

Equipment Type	Number
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## 11.0 Vegetation

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