Initial Study and Mitigated Negative Declaration for Fernjo Estates

June 2019

Prepared By:

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Prepared For:

City of Tulare
411 East Kern Avenue
Tulare, CA 93274

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City of Tulare
411 East Kern Avenue
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SECTION 1
CEQA Review Process

Project Title: Fernjo Estates

1.1 California Environmental Quality Act Guidelines

Section 15063 of the California Environmental Quality Act (CEQA) Guidelines requires that the Lead Agency prepare an Initial Study to determine whether a discretionary project will have a significant effect on the environment. All phases of the project planning, implementation, and operation must be considered in the Initial Study. The purposes of an Initial Study, as listed under Section 15063(c) of the CEQA Guidelines, include:

(1) Provide the lead agency with information to use as the basis for deciding whether to prepare an EIR or negative declaration;

(2) Enable an applicant or lead agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a negative declaration;

(3) Assist the preparation of an EIR, if one is required, by:

> *(A) Focusing the EIR on the effects determined to be significant,*
>
> *(B) Identifying the effects determined not to be significant,*
>
> *(C) Explaining the reasons for determining that potentially significant effects would not be significant, and*
>
> *(D) Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.*

(4) Facilitate environmental assessment early in the design of a project;

(5) Provide documentation of the factual basis for the finding in a negative declaration that a project will not have a significant effect on the environment

(6) Eliminate unnecessary EIRs;

(7) Determine whether a previously prepared EIR could be used with the project.

1.2 Initial Study

The Initial Study provided herein covers the potential environmental effects of the construction and operation of 80 single-family residential dwelling units on approximately 18.1 gross acres, as well as the annexation of the involved properties into the City of Tulare. The City of Tulare will act as the Lead Agency for processing the Initial Study/Negative Declaration pursuant to the CEQA Guidelines.

1.3 Environmental Checklist

The Lead Agency may use the CEQA Environmental Checklist Form [CEQA Guidelines, Section 15063(d)(3) and (f)] in preparation of an Initial Study to provide information for determination if there are significant effects of the project on the environment. A copy of the completed Environmental Checklist is set forth in **Section Three**.

1.4 Notice of Intent to Adopt a Negative Declaration

The Lead Agency shall provide a Notice of Intent to Adopt a Negative Declaration (CEQA Guidelines, Section 15072) to the public, responsible agencies, trustee agencies and the County Clerk within which the project is located, sufficiently prior to adoption by the Lead Agency of the Negative Declaration to allow the public and agencies the review period. The public review period (CEQA Guidelines, Section 15105) shall not be less than 30 days when the Initial Study/Negative Declaration is submitted to the State Clearinghouse unless a shorter period, not less than 20 days, is approved by the State Clearinghouse.

Prior to approving the project, the Lead Agency shall consider the proposed Negative Declaration together with any comments received during the public review process, and shall adopt the proposed Negative Declaration only if it finds on the basis of the whole record before it, that there is no substantial evidence that the project will have a significant effect on the environment and that the Negative Declaration reflects the Lead Agency's independent judgment and analysis.

The written and oral comments received during the public review period will be considered by The City of Tulare prior to adopting the Negative Declaration. Regardless of the type of CEQA document that must be prepared, the overall purpose of the CEQA process is to:

1) Assure that the environment and public health and safety are protected in the face of discretionary projects initiated by public agencies or private concerns;

2) Provide for full disclosure of the project's environmental effects to the public, the agency decision-makers who will approve or deny the project, and the responsible trustee agencies charged with managing resources (e.g. wildlife, air quality) that may be affected by the project; and

3) Provide a forum for public participation in the decision-making process pertaining to potential environmental effects.

According to Section 15070(a) a public agency shall prepare or have prepared a proposed negative declaration for a project subject to CEQA when:

> ***The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment. Less than significant impacts with mitigation measures have been identified.***

The Environmental Checklist Discussion contained in Section Three of this document has determined that the environmental impacts of the project are less than significant with mitigation measures and that a Mitigated Negative Declaration is adequate for adoption by the Lead Agency.

1.5 Negative Declaration or Mitigated Negative Declaration

The Lead Agency shall prepare or have prepared a proposed Negative Declaration or Mitigated Negative Declaration (CEQA Guidelines Section 15070) for a project subject to CEQA when the Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment.

The proposed Negative Declaration or Mitigated Negative Declaration circulated for public review shall include the following:

(a) A brief description of the project, including a commonly used name for the project.

(b) The location of the project, preferably shown on a map.

(c) A proposed finding that the project will not have a significant effect on the environment.

(d) An attached copy of the Initial Study documenting reasons to support the finding.

(e) Mitigation measures, if any.

1.6 Intended Uses of Initial Study/Negative Declaration documents

The Initial Study/Negative Declaration document is an informational document that is intended to inform decision-makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed project. The environmental review process has been established to enable the public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, the Lead Agency must balance any potential environmental effects against other public objectives, including economic and social goals.

The City of Tulare, as Lead Agency, will make a determination, based on the environmental review for the Environmental Study, Initial Study and comments from the general public, if there are less than significant impacts from the proposed project and the requirements of CEQA can be met by adoption of a Mitigated Negative Declaration.

1.7 Notice of Determination (NOD)

The Lead Agency shall file a Notice of Determination within five working days after deciding to approve the project. The Notice of Determination (CEQA Guidelines, Section 15075) shall include the following:

(1) An identification of the project including the project title as identified on the proposed negative declaration, its location, and the State Clearinghouse identification number for the proposed negative declaration if the notice of determination is filed with the State Clearinghouse.

(2) A brief description of the project.

(3) The agency's name and the date on which the agency approved the project.

(4) The determination of the agency that the project will not have a significant effect on the environment.

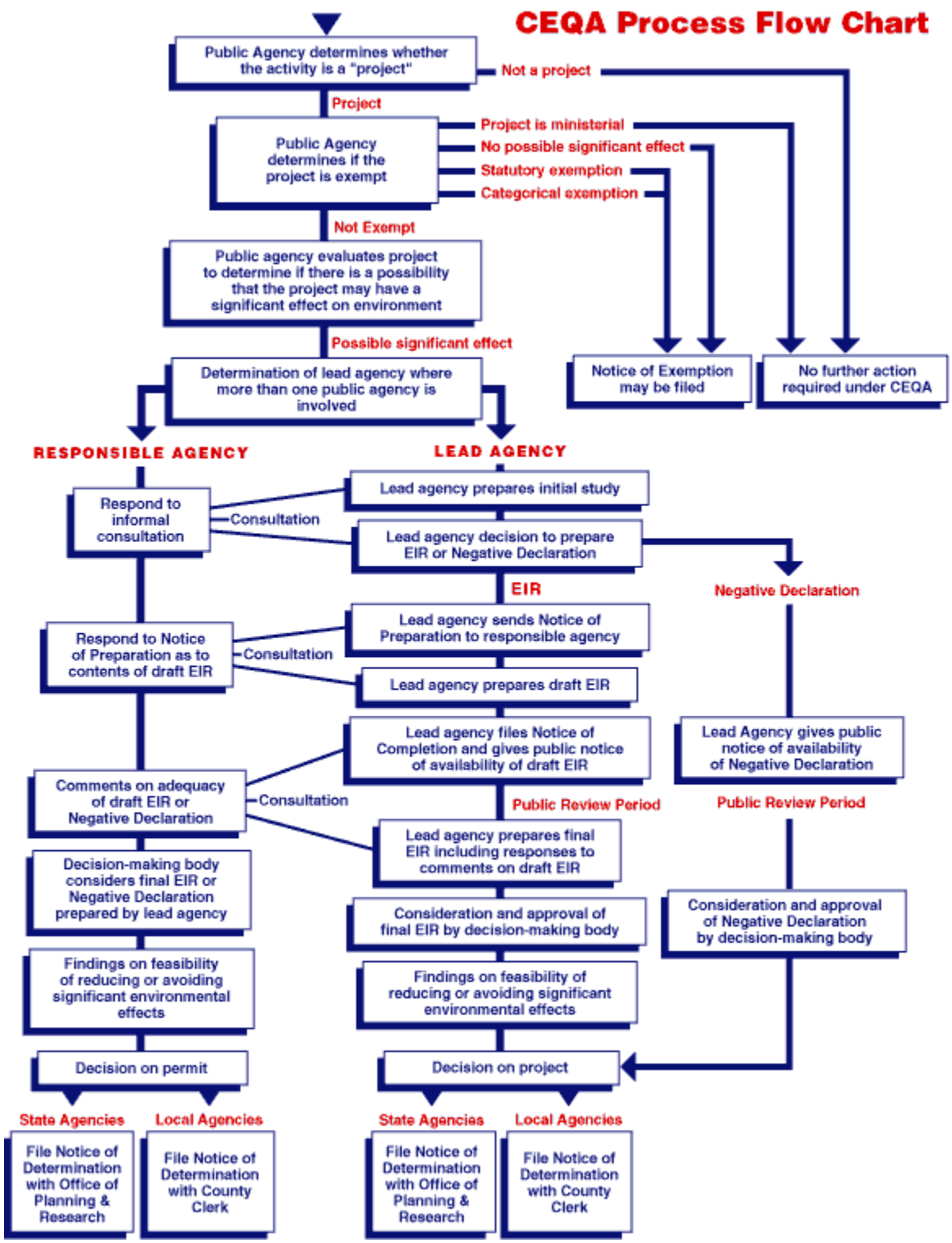
(5) A statement that a negative declaration or a mitigated negative declaration was adopted pursuant to the provisions of CEQA.

(6) A statement indicating whether mitigation measures were made a condition of the approval of the project, and whether a mitigation monitoring plan/program was adopted.

(7) The address where a copy of the negative declaration or mitigated negative declaration may be examined.

(8) The Notice of Determination filed with the County Clerk shall be available for public inspection and shall be posted by the County Clerk within 24 hours of receipt for a period of at least 30 days. Thereafter, the clerk shall return the Notice to the Lead Agency with a notation of the period posted.

1.8 CEQA Process Flow Chart



Section 2

Project Description

City of Tulare
411 East Kern Avenue
Tulare, CA 93274

SECTION 2
Project Description

Project Title: Fernjo Estates

2.1 Project Background & Purpose

The proposed project involves the development of 80 single-family residential units, annexation of the properties involved in the development, and pre-zone of the project site to R-1-6. The proposed project would result in on-site infrastructure improvements, including new local residential streets, widening of Mooney Blvd., new and relocated utilities, and a temporary retention basin to treat storm water flows. The proposed project site is within the City of Tulare Sphere of Influence and City of Tulare Urban Development Boundary. Construction is proposed to begin in January of 2021 and continue through January of 2024. See Figure 3-2 for site layout.

2.2 Project Location

The proposed project site is located within the south-east portion of the City of Tulare Sphere of Influence, directly east of Mooney Blvd. The project proposes the construction of 80 single-family residential dwelling units on approximately 18.1 gross acres and annexation of the involved properties (APN 184-110-016, 184-110-017, and 185-110-018) into the City of Tulare. The project site is bordered by irrigated agriculture to the east, Mooney Blvd. to the west, single-family residential neighborhood to the north, and irrigated agriculture to the south. There is one existing residential building within the annexation and development area.

2.3 Other Permits and Approvals

Other permits and approvals required for the Fernjo Estates Project are listed below. It should be noted that this list is not exhaustive and additional permits and approvals may also be required.

- *City of Tulare Tentative Subdivision Map*
- *City of Tulare Zone Amendment*
- *City of Tulare Landscape and Maintenance District*
- *City of Tulare Building and Encroachment Permits*
- *San Joaquin Valley Air Pollution Control District (SJVAPCD)*. The proposed project is within the jurisdiction of the SJVAPCD and will be required to comply with Rule VIII, 3135, 4101, and 9510.
- *Central Valley Regional Water Quality Control Board, SWPPP*. The proposed project site is within the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB). The Central Valley RWQCB will require a Storm Water Pollution Prevention Plan (SWPPP) to prevent impacts related to stormwater as a result of project construction

Regional Location
Fernjo Estates

Figure 2-1

Vicinity Map
Fernjo Estates

Figure 2-2

Section 3

Evaluation of Environmental Impacts

City of Tulare
411 East Kern Avenue
Tulare, CA 93274

SECTION 3
Evaluation of Environmental Impacts

Project Title: Fernjo Estates

This document is the Initial Study/Mitigated Negative Declaration for the proposed construction and operation 80 single-family residential dwelling units on approximately 18.1 gross acres, as well as the annexation of the involved properties into the City of Tulare and pre-zone of the project site to R-1-6. The project is located within the City of Tulare Sphere of Influence, directly south of the City of Tulare city limit. The City of Tulare will act as the Lead Agency for this project pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

3.1 PURPOSE

The purpose of this environmental document is to implement the California Environmental Quality Act (CEQA). Section 15002(a) of the CEQA Guidelines describes the basic purposes of CEQA as follows.

(1) Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
(2) Identify the ways that environmental damage can be avoided or significantly reduced.
(3) Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
(4) Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

This Initial Study of environmental impacts has been prepared to conform to the requirements of 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.).

According to Section 15070(a), a Negative Declaration is appropriate if it is determined that:

(1) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment.

3.2 INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

1. **Project Title:** Fernjo Estates

2. **Lead Agency:** City of Tulare
411 East Kern Avenue
Tulare, CA 93274
(559) 684-4210

3. **Applicant:** Joey & Tawney Fernandes
Contact Person: Joey Fernandes
22601 Rd. 148
Tulare, CA 93274
(559) 280-1850

4. **Project Location:** The proposed project site is located within the south-east portion of the City of Tulare Sphere of Influence, directly east of Mooney Blvd. The project proposes the construction of 80 single-family residential dwelling units on approximately 18.1 gross acres and annexation of the involved properties (APN 184-110-016, 184-110-017, and 185-110-018) into the City of Tulare. The project site is bordered by irrigated agriculture to the east, Mooney Blvd. to the west, single-family residential neighborhood to the north, and irrigated agriculture to the south. There is one existing residential building within the annexation and development area.

5. **General Plan Designation:** The parcels involved in the proposed project are designated by the City of Tulare General Plan as Low Density Residential.

6. **Zoning Designation:** The project site is currently zoned by Tulare County as AE-20, or Exclusive Agriculture with a 20-acre minimum lot size. The project site is to be pre-zoned by the City of Tulare as R-1-6.

7. **Project Description:** The proposed project involves the development of 80 single-family residential units and the annexation of the properties involved in the development. The proposed project would result in on-site infrastructure improvements, including new local residential streets, widening of Mooney Blvd., new and relocated utilities, and a temporary retention basin to treat storm water flows. The proposed project site is within the City of Tulare Sphere of Influence and City of Tulare Urban Development Boundary. Construction is proposed to begin in January of 2021 and continue through January of 2024. See Figure 3-2 for site layout.

8. **Surrounding Land Uses and Settings:**

   North Low Density Residential (City of Tulare General Plan)
   South Low Density Residential (City of Tulare General Plan)
   East Low Density Residential (City of Tulare General Plan)
   West Low Density Residential (City of Tulare General Plan)

9. **Required Approvals:** The following discretionary approvals are required from The City of Tulare for the proposed project:

   - Pre-zone to R-1-6
   - Annexation

10. **Native American Consultation:** No tribes have requested to be notified of projects within the City of Tulare for AB 52 tribal consultation.

11. **Parking and access:** Vehicular access to the project will be available via S Mooney Blvd. and Nelder Grove St. The proposed residential development will provide both covered (garage) and uncovered street parking, which complies with the City of Tulare Code of Ordinances § 10.192.040 requiring two covered spaces per dwelling unit. During construction, workers will utilize existing facility parking areas and/or temporary construction staging areas for parking of vehicles and equipment.

12. **Landscaping and Design:** The landscape and design plans will be required at time the project submits for building permit on the project and will be subject to the City of Tulare's Water Efficient Landscape Ordinance (WELO).

13. **Utilities and Electrical Services:** All City services (water, sewer and stormwater, law enforcement, fire protection etc.) will be extended to the proposed Project area upon development. Sewer and water lines currently run along S Mooney Blvd. The proposed project includes the construction of a temporary retention basin to treat storm water flows until project can tie into the City's stormwater treatment system.

Acronyms

BMP	Best Management Practices
CAA	Clean Air Act
CCR	California Code of Regulation
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CWA	California Water Act
DHS	Department of Health Services
FEIR	Final Environmental Impact Report
FPPA	Farmland Protection Policy Act
ISMND	Initial Study Mitigated Negative Declaration
MCL	Maximum Contaminant Level
ND	Negative Declaration
NAC	Noise Abatement Criteria
RCRA	Resource Conservation and Recovery Act of 1976
RWQCB	Regional Water Quality Control Board
SHPO	State Historic Preservation Office
SJVAPCD	San Joaquin Valley Air Pollution Control District
SWPPP	Storm Water Pollution Prevention Plan

Vicinity Map
Fernjo Estates

Figure 3-1

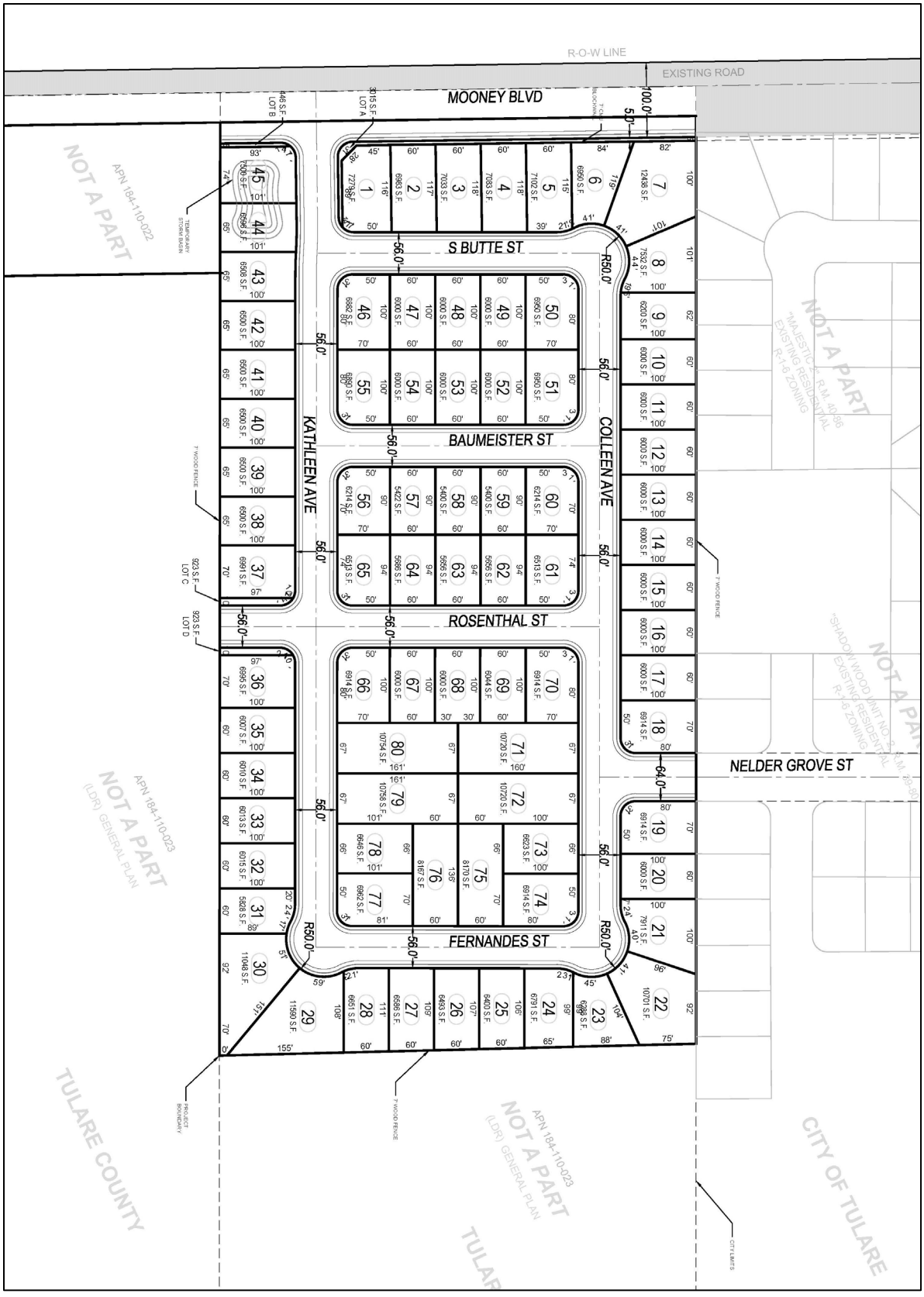


Figure 3-2. Site Plan.

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately support by the information sources a lead agency cites, in the parentheses following each question. A "No Impact" answer is adequately supported if the reference 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 if 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 adequate 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 and 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.

3.4 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture and Forest Resources	☐ Hazards and Hazardous Materials	☐ Recreation
☐ Air Quality	☐ Hydrology and Water Quality	☐ Transportation
☐ Biological Resources	☐ Land Use and Planning	☐ Utilities and Service System
☐ Cultural Resources	☐ Mineral Resources	☐ Wildfire
☐ Energy	☐ Noise	☐ Mandatory Findings of Significance
☐ Geology and soils	☐ Population	

DETERMINATION: (To be completed by the Lead Agency) Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

On the basis of this 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. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and 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 attached sheets. A Negative Declaration 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 requested.

SIGNATURE	DATE 6/18/19
Josh McDonnel, AICP	City of Tulare
PRINTED NAME	AGENCY

3.5 ENVIRONMENTAL ANALYSIS

The following section provides an evaluation of the impact categories and questions contained in the checklist and identify mitigation measures, if applicable.

I. AESTHETICS

Except as provided in Public Resource Code Section 210999, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☑	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within state scenic highway?	☐	☐	☐	☑
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☑
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☑	☐

Environmental Setting

There are no aesthetic resources identified in the City of Tulare General Plan; however, the views of the Sierra Nevada Mountains are considered to be an important scenic vista in Tulare County.

Sierra Nevada Mountains: The Sierra Nevada mountain range and its foothills stretch along the east area of the county and are a valuable aesthetic resource. Additionally, Sequoia National Park is located within the stretch of the Sierra Nevada Mountains located in Tulare County. Sequoia National Forest is a U.S. National Forest known for its mountain scenery and natural resources. Located directly north of Sequoia National Park is Kings Canyon National Park, a U.S. National Park also known for its towering sequoia trees and scenic vistas. The Sierra Nevada Mountains are approximately 17 miles east of the proposed project site but views of the mountains are not visible on most days due to poor air quality. In addition, the trees in the existing orchard currently obstruct eastern views to the mountains from Mooney Boulevard.

The following photos demonstrate the aesthetic character of the project area. As shown, the proposed project site is located in a relatively flat area with both agriculture and residential development.

Photo 1: Southwest corner of project site looking west. Source: 4-Creeks, Inc. 7/11/18

Photo 2: Southwest corner of project site looking east. Source: 4-Creeks, Inc. 7/11/18

Photo 3: Northeast corner of project site looking north. Source: 4-Creeks, Inc. 7/11/18

Photo 4: Northeast corner of project site looking west. Source: 4-Creeks, Inc. 7/11/18

Photo 5: Western boundary of project site. Source: 4-Creeks, Inc. 7/11/18

Photo 6: Existing fruit trees on proposed project site. Source: 4-Creeks, Inc. 7/11/18

Regulatory Setting

Scenic Roadways: The California Scenic Highway Program was established in 1963 by the state Legislature for the purpose of protecting and enhancing the natural beauty of California highways and adjacent corridors through conservation strategies. The State Scenic Highway System includes a list of highways that have either been officially designated, or are eligible for designation. State laws affiliated with governing the scenic highway program can be found in Sections 260-263 in The Street and Highways Code. The Open Space and Conservation Element of the County General Plan identifies the following County Designated Scenic Roadways:

State Scenic Highways: The State Scenic Highway Program is implemented by Caltrans and was developed to preserve the aesthetic quality of certain highway corridors. Highways included in this program are designated as scenic highways. A highway is designated as scenic based on how much of the natural landscape is visible to travelers, the quality of that landscape, and the extent to which development obstructs views of the landscape. There are no designated State Scenic Highways or highways that are eligible for designation within the City of Tulare.

City of Tulare General Plan: The City of Tulare General Plan includes the following aesthetic goals and policies that are intended to protect the City's aesthetic resources.

- LU-P13.14 Scenic Features and Views. The City shall preserve its scenic features and view corridors to the mountains.
- LU-P13.10 Subdivision Design. The City shall discourage residential design approaches within subdivisions which create monotonous or non-aesthetically pleasing neighborhoods (e.g., excessive repetition in house form, setback, and building height; repetitive driveway configurations; prominence of garage doors; etc.).

Discussion

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

Less than Significant Impact: A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscape for the benefit of the general public. The Sierra Nevada Mountains are the primary scenic vista within this region and the Land Use Element of the City's General Plan states that view corridors to the mountains should be preserved. The foothills of the Sierra Nevada Mountains are approximately 17 miles east of the proposed project site, however views of the mountains are not visible on most days due to poor air quality.

Views of the Sierra Nevada Mountains would largely be unaffected by the proposed project because of the distance between the project site and the mountains and the limited visibility of these features due to air quality. In addition, the trees in the existing orchard currently obstruct eastern views to the mountains from Mooney Boulevard. The impact is *less than significant.*

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

No Impact: There are no Officially Designated State Scenic Highways within the City of Tulare. Highway 198 is the nearest Eligible State Scenic Highway and is located approximately 9 miles north of the project site. Significant urban development between the project site and Highway 198 completely eliminates visibility of the project site from the highway. There is *no impact.*

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact: The proposed project site is used for agriculture and has one rural residence. The site is to be annexed into the city and is bordered by urbanized development to the north and west. Therefore, the site should be considered an urbanized area for the purposes of this question. The project site is designated as Low Density Residential by the City's General Plan and will be pre-zoned R-1-6 upon annexation. The project will comply with all landscaping, setback, and development standards established by the City for R-1-6 zones. There is *no impact.*

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

Less than Significant Impact: The proposed project would result in new lighting sources on the project site consistent with adjacent residential development. New lighting sources would include interior lighting from residences, street lighting, and security lighting. All street and landscape lighting will be consistent with the City's lighting standards, which are developed to minimize impacts related to excessive light and glare. Additionally, the project would comply with the City's General Plan Policies LU-P13.24 and LU-P13.25 to prevent excess spillover lighting that could otherwise occur within the vicinity of the project area. Although the project will introduce new light sources to the area, all lighting will be consistent with adjacent residential land uses and the City's lighting standards. The impacts are *less than significant.*

II. AGRICULTURE AND FOREST RESOURCES:

In determining whether 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 agriculture and 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, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☑	☐	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☑	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned timberland Production (as defined by Government Code section 51104(g)?	☐	☐	☐	☑
d) Result in the loss of forestland or conversion of forest land to non-forest use?	☐	☐	☐	☑
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forestland to non-forest use?	☐	☑	☐	☐

Environmental Setting

Agriculture is a vital component of the City of Tulare's economy and is a significant source of the City's cultural identity. As such, preserving the productivity of agricultural lands is integral to maintaining the City's culture and economic viability.

The proposed project site is not under Williamson Act Contract but is designated as Prime Farmland under the Important Farmland Mapping and Monitoring Program (FMMP). The project site is currently operated as a fruit orchard and is bounded by agricultural activities to the south and east.

Regulatory Setting

California Land Conservation Act of 1965: The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, allows local governments to enter into contracts with private landowners to restrict the activities on specific parcels of land to agricultural or open space uses. The landowners benefit from the contract by receiving greatly reduced property tax assessments. The California Land Conservation Act is overseen by the California Department of Conservation; however local governments are responsible for determining specific allowed uses and enforcing the contract. The City of Tulare General Plan states that the City encourages the use of Williamson Act contracts on parcels located outside the urban development boundary.

California Farmland Mapping and Monitoring Program (FMMP): The FMMP is implemented by the California Department of Conservation (DOC) to conserve and protect agricultural lands within the State. Land is included in this program based on soil type, annual crop yields, and other factors that influence the quality of farmland. The FMMP mapping categories for the most important statewide farmland are as follows:

- ***Prime Farmland*** has the ideal physical and chemical composition for crop production. It has been used for irrigated production in the four years prior to classification and is capable of producing sustained yields.
- ***Farmland of Statewide Importance*** has also been used for irrigated production in the four years prior to classification and is only slightly poorer quality than Prime Farmland.
- ***Unique Farmland*** has been cropped in the four years prior to classification and does not meet the criteria for Prime Farmland or Farmland of Statewide Importance but has produced specific crops with high economic value.
- ***Farmland of Local Importance*** encompasses farmland that does not meet the criteria for the previous three categories. These may lack irrigation, produce major crops, be zoned as agricultural, and/or support dairy.
- ***Grazing Land*** has vegetation that is suitable for grazing livestock.

City of Tulare General Plan: The Conservation and Open Space Element of the City's General Plan includes the following agricultural resource goals and policies that are potentially applicable to the proposed project:

- COS-P3.1 Protect Interim Agricultural Activity. The City shall protect the viability of existing interim agricultural activity in the UDB to the extent possible.
- COS-P3.2 Agricultural Buffers. The City shall require that agricultural land uses designated for long-term protection (in a Williamson Act contract or under a conservation easement located outside the City's UDB) shall be buffered from urban land uses through the use of techniques including, but not limited to, spatial separations (e.g. greenbelts, open space setbacks, etc.), transitions in density, soundwalls, fencing, and/or berming.

- COS-P3.3 Agricultural Disclosures. The City shall require that developers of residential projects, which are within general proximity of agricultural operations in the city, to provide notification to new homeowners within their deeds of the City's right to farm ordinance.
- COS-P3.4 Discourage Leapfrog Development. The City shall discourage leapfrog development (defined as urban development more than 1/2 mile from existing urban development) and development of peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations and contribute to premature conversion.
- COS-P3.9 Williamson Act Contracts. The City shall encourage the use of Williamson Act contracts on parcels located outside the UDB.
- COS-P3.10 Williamson Act Contracts near City Limits. The City shall protest the formation of new Williamson Act or Super Williamson Act contracts within the UDB.
- COS-P3.11 Williamson Act Non-Renewal in UDB. The City shall support non-renewal or cancellation processes for Williamson Act designated lands within the City of Tulare UDB.
- COS-P3.12 Mitigation for Agricultural Land Conversion. The City shall create and adopt a mitigation program to address the conversion of Prime Farmland & Farmland of Statewide Importance within the UDB and outside the city limits to non-agricultural uses. This mitigation program shall:
    - Require a 1:1 ratio of agricultural land preserved for every acre of land converted.
    - Require land to be preserved be equivalent to the land converted, e.g. Prime Farmland, and further require that the land to be preserved has adequate existing water supply to support agricultural use, is designated and zoned for agriculture, is located outside of a city UDB, and is within the southern San Joaquin Valley.
    - Require mitigation prior to or at time of impact.
    - Allow mitigation to be provided either by purchase of agricultural easements or by payment of agricultural mitigation fees, but state that purchase of conservation easements is the preferred form of mitigation. Both purchase of easements and payment of mitigation fees should cover not only the cost of an agricultural easement, but additional costs of transactional fees and administering, monitoring, and enforcing the easement.
    - Require easements to be held by and/or mitigation fees to be transferred to a qualifying entity, such as a local land trust with demonstrated experience administering, monitoring and enforcing agricultural easements.
    - Require the qualifying entity to submit annual status and monitoring reports to the City and to Tulare County.
    - Allow stacking of conservation and agricultural easements if habitat needs of species on conservation easement are compatible with agricultural activities/use on agricultural easement.
    - Allow exemptions for conversion of land to agricultural tourism uses, agricultural processing uses, agricultural buffers, public facilities, and roadways.
- COS-P3.13 Farmland Trust and Funding Sources. The City shall encourage the trust or other qualifying entity to pursue a variety of fund- ing sources (grants, donations, taxes, or other funds) to fund further implementation of mitigation for agricultural land conversion.

Discussion

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

Less than Significant Impact with Mitigation: The proposed site is classified as Prime Farmland by the California Department of Conservation farmland mapping and monitoring program and the project will convert prime agricultural land to residential uses. The City's General Plan (COS-P3.12) requires mitigation for agricultural conversation to non-agricultural uses. As such, impacts will be *less than significant with mitigation incorporation.*

Mitigation Measure AG-1: Per COS-P3.12 of the City of Tulare General Plan, agricultural land equivalent to that of the project site will be preserved at a 1:1 ratio for every acre of land converted. Prior to project development, agricultural mitigation fees will be paid to a local land trust agency. These fees will be sufficient to cover the cost of the agricultural easement and transactional fees, as well as costs related to the administering, monitoring, and enforcing of the easement.

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

Less than Significant Impact: The proposed project site is currently zoned for agricultural use by Tulare County as AE-20, however the site is designated for low density residential development by the City of Tulare. Although the proposed project does conflict with the County's zoning for agricultural use, it is consistent with the City's General Plan land use designation. Annexation of the project site into the City of Tulare would eliminate this conflict, as County Zoning would no longer be applicable to the project site. The project site is not under a Williamson Act Contract and the project site will not be zoned for agricultural use once it is annexed into the City of Tulare. The impact is *less than significant.*

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned timberland Production (as defined by Government Code section 51104(g)?

No Impact: The project site is not zoned for forest or timberland production and there is no forest land located on the site. Therefore, *no impacts* would occur.

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

No Impact: No conversion of forestland, as defined under Public Resource Code or General Code, will occur as a result of the project and there would be *no impacts*.

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

Less than Significant Impact with Mitigation: As discussed above, the proposed project site is presently under active agriculture use and implementation of the proposed project would convert agricultural land to residential uses. However, agricultural mitigation fees will be paid as specified in Mitigation Measure AG-1 to mitigate impacts to prime farmland, and the project will be consistent with land use designated by the City's general plan. Adjacent farmland will not be converted to non-agricultural use as a result of the proposed project. The impact is *less than significant with mitigation incorporation.*

III. 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. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☑	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☑	☐

Environmental Setting

Air pollution is directly related to regional topography. Topographic features can either stimulate the movement of air or restrict air movement. California is divided into regional air basins based on topographic air drainage features. The proposed project site is within the San Joaquin Valley Air Basin, which is bordered by the Sierra Nevada Mountains to the east, Coastal Ranges to the west, and the Tehachapi Mountains to the south.

The mountain ranges surrounding the San Joaquin Valley Air Basin (SJVAB) serve to restrict air movement and prevent the dispersal of pollution. As a result, the SJVAB is in nonattainment for several pollutant standards.

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone – One hour	No Federal Standard[f]	Nonattainment/Severe
Ozone – Eight hour	Nonattainment/Extreme[e]	Nonattainment
PM 10	Attainment[c]	Nonattainment
PM 2.5	Nonattainment[d]	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

[a] See 40 CFR Part 81
[b] See CCR Title 17 Sections 60200-60210
[c] On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM10 National Ambient Air Quality Standard (NAAQS) and approved the PM10 Maintenance Plan.
[d] The Valley is designated nonattainment for the 1997 PM2.5 NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5

NAAQS on November 13, 2009 (effective December 14, 2009).
[e] Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).
[f] Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the federal 1-hour ozone standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.

Table 3-1. San Joaquin Valley Attainment Status; Source: SJVAPCD

Regulatory Setting

Federal Clean Air Act – The 1977 Federal Clean Air Act (CAA) authorized the establishment of the National Ambient Air Quality Standards (NAAQS) and set deadlines for their attainment. The Clean Air Act identifies specific emission reduction goals, requires both a demonstration of reasonable further progress and an attainment demonstration, and incorporates more stringent sanctions for failure to meet interim milestones. The U.S. EPA is the federal agency charged with administering the Act and other air quality-related legislation. EPA's principal functions include setting NAAQS; establishing minimum national emission limits for major sources of pollution; and promulgating regulations. Under CAA, the NCCAB is identified as an attainment area for all pollutants.

California Clean Air Act – California Air Resources Board coordinates and oversees both state and federal air pollution control programs in California. As part of this responsibility, California Air Resources Board monitors existing air quality, establishes California Ambient Air Quality Standards, and limits allowable emissions from vehicular sources. Regulatory authority within established air basins is provided by air pollution control and management districts, which control stationary-source and most categories of area-source emissions and develop regional air quality plans. The project is located within the jurisdiction of the San Joaquin Valley Air Pollution Control District.

The state and federal standards for the criteria pollutants are presented in Section 8.4 of The San Joaquin Valley Unified Air Pollution Control District's 2015 "Guidance for Assessing and Mitigating Air Quality Impacts". These standards are designed to protect public health and welfare. The "primary" standards have been established to protect the public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soils, water, visibility, materials, vegetation and other aspects of general welfare. The U.S. EPA revoked the national 1-hour ozone standard on June 15, 2005, and the annual PM_{10} standard on September 21, 2006, when a new $PM_{2.5}$ 24-hour standard was established.

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (03)	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	--	Same as Primary Standard	Ultraviolet 8 Hour Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.075 ppm (147 µg/m³)		
Respirable Particulate Matter (PM_{10})	24 Hour	50 µg/m	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Annual Analysis
	Annual Arithmetic Mean	20 µg/m3		--		
Fine Particulate	24 Hour		Gravimetric or Beta	35 µg/m³	Same as	Inertial Separation

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m³	Attenuation	15 µg/m³	Primary Standard	and Gravimetric Annual Analysis
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	--	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	--	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		--	--	
Nitrogen Dioxide (NO_2) [8]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	--	Gas Phase Annual Chemiluminescence
	Arithmetic Mean	0.030 ppm (57 µg/m³)		53 ppb (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	--	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	--		--	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)9	--	
	Annual Arithmetic Mean	--		0.030 ppm (for certain areas)9	--	
Lead[10,11]	30 Day Average	1.5 µg/m³	Atomic Absorption	--	--	High Volume Sampler and Atomic Absorption
	Calendar Quarter	--		1.5 µg/m3 (for certain areas)11	Same as Primary Standard	
	Rolling 3-Month Average	--		0.15 µg/m³		
Visibility Reducing Particles[12]	8 Hour	See footnote 12	Beta Attenuation and Transmittance through Filter Tape	No National Standard		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[10]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. 2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies. 3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas. 4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used. 5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. 6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. 7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA. 8. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively. 9. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm. 10. The ARB has identified lead and vinyl chloride as ‘toxic air contaminants’ with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants. 11. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved. 12. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.					

Table 3-2. Ambient Air Quality Standards; Source: SJVAPCD

San Joaquin Valley Air Pollution Control District (SJVAPCD) – The SJVAPCD is responsible for enforcing air quality standards in the project area. To meet state and federal air quality objectives, the SJVAPCD adopted the following thresholds of significance for projects:

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
Nox	10	10	10
ROG	10	10	10
SOx	27	27	27
PM10	15	15	15
PM2.5	15	15	15

Table 3-3. SJVAPCD Thresholds of Significance for Criteria Pollutants; Source: SJVAPCD

The following SJVAPCD rules and regulations may apply to the proposed project:

- **Rule 3135:** Dust Control Plan Fee. All projects which include construction, demolition, excavation, extraction, and/or other earth moving activities as defined by Regulation VIII (Described below) are required to submit a Dust Control Plan and required fees to mitigate impacts related to dust.
- **Rule 4101:** Visible Emissions. District Rule 4101 prohibits visible emissions of air contaminants that are dark in color and/or have the potential to obstruct visibility.
- **Rule 9510:** Indirect Source Review (ISR). This rule reduces the impact PM10 and NOX emissions from growth on the SJVB. This rule places application and emission reduction requirements on applicable development projects in order to reduce emissions through onsite mitigation, offsite SJVAPCD administered projects, or a combination of the two. This project will submit an Air Impact Assessment (AIA) application in accordance with Rule 9510's requirements.
- **Regulation VIII:** Fugitive PM10 Prohibitions. Regulation VIII is composed of eight rules which together aim to limit PM10 emissions by reducing fugitive dust. These rules contain required management practices to limit PM10 emissions during construction, demolition, excavation, extraction, and/or other earth moving activities.

Discussion

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

No Impact: The proposed project is located within the boundaries of the San Joaquin Valley Air Pollution Control District (SJVAPCD) and would result in air pollutant emissions that are regulated by the air district during both its construction and operational phases. The SJVAPCD is responsible for bringing air quality in Tulare County into compliance with federal and state air quality standards. The air district has Particulate Matter (PM) plans, Ozone Plans, and Carbon Monoxide Plans that serve as the clean air plan for the basin. Together, these plans quantify the required emission reductions to meet federal and state air quality standards and provide strategies to meet these standards.

Construction Phase. Project construction would generate pollutant emissions from the following construction activities: site demolition, site preparation, grading, building construction, application of architectural coatings, and paving. The construction related emissions from these activities were calculated using CalEEMod. The full CalEEMod Report can be found in Appendix A. As shown in Table 3-4 below, project construction related emissions do not exceed the thresholds established by the SJVAPCD.

	CO (tpy)	ROG (tpy)	SOx (tpy)*	Nox (tpy)	PM10 (tpy)	PM2.5 (tpy)
Emissions Generated from Project Construction	**2.4115**	**1.5753**	**0.00414**	**2.9224**	**0.3020**	**0.1755**
SJVAPCD Air Quality Thresholds of Significance	**100**	**10**	**27**	**10**	**15**	**15**
*Threshold established by SJVAPCD for SOx, however emissions are reported as SO2 by CalEEMod.						

Table 3-4. Projected Project Emissions Compared to SJVAPCD Thresholds of Significance for Criteria Pollutants related to Construction; Source: SJVAPCD, CalEEMod Analysis (Appendix A)

Operational Phase. Implementation of the proposed project would result in long-term emissions associated with area sources, such as natural gas consumption, landscaping, applications of architectural coatings, and consumer products, as well as mobile emissions. Operational emissions from these factors were calculated using CalEEMod. The Full CalEEMod Report can be found in Appendix A. As shown in Table 3-5 below, the project's operational emissions do not exceed the thresholds established by the SJVAPCD.

	CO (tpy)	ROG (tpy)	SOx (tpy)*	Nox (tpy)	PM10 (tpy)	PM2.5 (tpy)
Emissions Generated from Project Operations	**2.3421**	**1.0477**	**0.00585**	**1.8165**	**0.2889**	**0.0903**
SJVAPCD Air Quality Thresholds of Significance	**100**	**10**	**27**	**10**	**15**	**15**
*Threshold established by SJVAPCD for SOx, however emissions are reported as SO2 by CalEEMod.						

Table 3-5. Projected Project Emissions Compared to SJVAPCD Thresholds of Significance for Criteria Pollutants related to Operations; Source: SJVAPCD, CalEEMod Analysis (Appendix A)

Because the emissions from both construction and operation of the proposed project would be below the thresholds of significance established by the SJVAPCD, the project would not conflict with or obstruct implementation of an applicable air quality plan and there is *no impact.*

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact: The SJVAPCD accounts for cumulative impacts to air quality in Section 1.8 "Thresholds of Significance – Cumulative Impacts" in its 2015 Guide for Assessing and Mitigating Air Quality Impacts. The SJVAPCD considered basin-wide cumulative impacts to air quality when developing its significance thresholds. Because construction and operational emissions are below the significance thresholds adopted by the air district, and compliance with SJVAPCD rules will address any cumulative impacts regarding operational emissions, impacts regarding cumulative emissions would be *less than significant.*

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

Less Than Significant Impact: The single-family residential structures located directly north and east of the project site are the closest sensitive receptors. The project does not include any project components identified by the California Air Resources Board that could potentially impact any sensitive receptors. These include heavily traveled roads, distribution centers, fueling stations, and dry-cleaning operations. The project would not expose sensitive receptors to substantial pollutant concentrations. The impact would be *less than significant.*

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

Less Than Significant Impact: The project will create temporary localized odors during project construction. The proposed project will not introduce a conflicting land use (surrounding land includes residential neighborhoods) to the area and will not have any component that would typically emit odors. The project would not create objectionable odors affecting a substantial number of people. Therefore, impacts would be *less than significant.*

IV. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish & Game or U.S. fish and Wildlife Service?	☐	☑	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☑
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through director removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☑	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

Environmental Setting

The project site is situated within a composite of agricultural lands and urban development. It is bordered to the north and west by residential development, and to the south and east by agriculture.

THE CNDDB QuickView Tool was used to evaluate special status species occurrences in the nine USGS 7.5 minute quadrangles containing and immediately adjacent to the project site. 18 special status animal species and 11 special status plan species were identified within this search area. These species and their protection status are listed in the tables below:

Special Status Animal Species

Common Name	Scientific Name	Status
western spadefoot	Spea hammondii	CSC
Swainson's hawk	Buteo swainsoni	CT
mountain plover	Charadrius montanus	CSC
western yellow-billed cuckoo	Coccyzus americanus occidentalis	FT, CE
tricolored blackbird	Agelaius tricolor	CCE
burrowing owl	Athene cunicularia	CSC
southwestern willow flycatcher	Empidonax traillii extimus	FE, CE
vernal pool fairy shrimp	Branchinecta lynchi	FT
valley elderberry longhorn beetle	Desmocerus californicus dimorphus	FT
San Joaquin kit fox	Vulpes macrotis mutica	FE, CT
Tipton kangaroo rat	Dipodomys nitratoides nitratoides	FE, CE
western mastiff bat	Eumops perotis californicus	CSC
American badger	Taxidea taxus	CSC
pallid bat	Antrozous pallidus	CSC
northern California legless lizard	Anniella pulchra	CSC
blunt-nosed leopard lizard	Gambelia sila	FE, CE, CFP
western pond turtle	Emys marmorata	CSC
coast horned lizard	Phrynosoma blainvillii	CSC

Status Codes

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

Table 3-6. Special status animal species potentially occurring within the project area; Source: CNDDB Quickview Tool

Special Status Plant Species

Common Name	Scientific Name	Status
spiny-sepaled button-celery	Eryngium spinosepalum	CNPS 1B
San Joaquin adobe sunburst	Pseudobahia peirsonii	FT, CE, 1B
California jewelflower	Caulanthus californicus	FE, CE
heartscale	Atriplex cordulata var. cordulata	CNPS 1B
Earlimart orache	Atriplex cordulata var. erecticaulis	CNPS 1B
brittlescale	Atriplex depressa	CNPS 1B
lesser saltscale	Atriplex minuscula	CNPS 1B
subtle orache	Atriplex subtilis	CNPS 1B
California satintail	Imperata brevifolia	CNPS 2B
California alkali grass	Puccinellia simplex	CNPS 1B
recurved larkspur	Delphinium recurvatum	CNPS 1B

CNPS Listing

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

Table 3-7. Special status plant species potentially occurring within the project area; Source: CNDDB Quickview Tool

Of the 29 special status plant and animal species identified in the nine USGS 7.5 minute quadrangles containing and immediately adjacent to the project site, only seven have occurrences within the USGS 7.5 minute quadrangle containing the project site. These are listed below:

- western spadefoot
- Swainson's hawk
- burrowing owl
- San Joaquin kit fox
- Tipton kangaroo rat
- San Joaquin adobe sunburst
- California jewelflower

Regulatory Setting

Federal Endangered Species Act (FESA): defines an *endangered species* as "any species or subspecies that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species or subspecies that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."

The Federal Migratory Bird Treaty Act (FMBTA: 16 USC 703-712): FMBTA prohibits killing, possessing, or trading in any bird species covered in one of four international conventions to which the United States is a party, except in accordance with regulations prescribed by the Secretary of the Interior. The name of the act is misleading, as it actually covers almost all birds native to the United States, even those that are non-migratory. The FMBTA encompasses whole birds, parts of birds, and bird nests and eggs.

Although the USFWS and its parent administration, the U.S. Department of the Interior, have traditionally interpreted the FMBTA as prohibiting incidental as well as intentional "take" of birds, a January 2018 legal opinion issued by the Department of the Interior now states that incidental take of migratory birds while engaging in otherwise lawful activities is permissible under the FMBTA. However, California Fish and Game Code makes it unlawful to take or possess any non-game bird covered by the FMBTA (Section 3513), as well as any other native non-game bird (Section 3800), even if incidental to lawful activities.

Birds of Prey (CA Fish and Game Code Section 3503.5): Birds of prey are protected in California under provisions of the Fish and Game Code (Section 3503.5), which states that it is unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks and eagles) or Strigiformes (owls), as well as their nests and eggs. The bald eagle and golden eagle are afforded additional protection under the federal Bald and Golden Eagle Protection Act (16 USC 668), which makes it unlawful to kill birds or their eggs.

Clean Water Act: Section 404 of the Clean Water Act of (1972) is to maintain, restore, and enhance the physical, chemical, and biological integrity of the nation's waters. Under Section 404 of the Clean Water Act, the US Army Corps of Engineers (USACE) regulates discharges of dredged and fill materials into "waters of the United States" (jurisdictional waters). Waters of the US including 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.

California Endangered Species Act (CESA): prohibits the take of any state-listed threatened and endangered species. CESA defines *take* as "any action or attempt to hunt, pursue, catch, capture, or kill any listed species." If the proposed project results in a take of a listed species, a permit pursuant to Section 2080 of CESA is required from the CDFG.

Discussion

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

Less Than Significant Impact with Mitigation: Based on the existing conditions of the project site and vicinity, there is potential for the following special status species to occur within the vicinity of the project site.

Swainson's hawk: The Swainson's hawk is a raptor that migrates to California during its breeding season. The species usually nests in mature trees in riparian areas, oak savannah, and at the margins of agricultural fields. The species forages for small rodents in grasslands and low profile agricultural fields. The project site and adjacent agricultural fields could be used as foraging or nesting habitat for this species. The following mitigation measures will be implemented to prevent significant impacts from occurring to the Swainson's hawk and other nesting raptors.

Mitigation Measure BIO-1a: In order to avoid impacts to nesting raptors and migratory birds, the project will be constructed, if feasible, outside the nesting season, or between September 1st and January 31st.

Mitigation Measure BIO-1b: If project activities must occur during the nesting season (February 1-August 31), a qualified biologist will conduct preconstruction surveys for active raptor and migratory bird nests within 14 days prior to the start of these activities. The survey will include the proposed work area(s) and surrounding lands within 500 feet, where accessible, for all nesting raptors and migratory birds save Swainson's hawk; the Swainson's hawk survey will extend to 0.5 miles outside of work area boundaries. If no nesting pairs are found within the survey area, no further mitigation is required.

Mitigation Measure BIO-1c: Should any active nests be discovered near proposed work areas, the active nests shall be avoided with a construction free buffer of 500 feet. Construction free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until the biologist has determined that the young have fledged.

Implementation of the above measures will reduce potential project impacts to nesting raptors and migratory birds to a less than significant level, and will ensure compliance with state laws protecting these species.

Burrowing Owl: The burrowing owl can be found in dry annual or perennial grasslands, deserts, and scrublands characterized by low growing vegetation. The species is dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows. The project site consists almost entirely of orchard habitat unsuitable for the burrowing owl. However, it is conceivable that burrowing owls could nest or roost in California ground squirrel burrows in open areas of the site The following mitigation measures will be implemented to prevent significant impacts from occurring to the burrowing owl.

Mitigation Measure BIO-2a: (Take Avoidance Survey). A take avoidance survey for burrowing owls will be conducted by a qualified biologist within 14 days prior to the start of construction. This take avoidance survey will be conducted according to methods described in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). The survey area will include all suitable habitat on and within 200 meters of project impact areas, where accessible.

Mitigation Measure BIO-2b: (Avoidance of Active Nests and Roosts). If project activities are undertaken during the breeding season (February 1-August 31) and active nest burrows are identified within or near project impact areas, a 200-meter disturbance-free buffer will be established around these burrows. During the non-breeding season (September 1-January 31), resident owls occupying burrows in or near project impact areas will be avoided through the establishment of a 50-meter disturbance-free buffer or passively relocated to alternative habitat as described below. Smaller buffer areas during the non-breeding season may be implemented with the presence of a qualified biological monitor during all activities occurring within 50 meters of occupied burrows. Buffers will remain in place for the duration of project activities occurring within the vicinity of burrowing owl activity.

Mitigation Measure BIO-2c: (Passive Relocation of Resident Owls). During the nonbreeding season (September 1-January 31), resident owls occupying burrows in project impact areas may be passively relocated to alternative habitat. This activity would be conducted in accordance with a relocation plan prepared by a qualified biologist. Passive relocation may include one or more of the following elements: 1) establishing a minimum 50-foot buffer around all active burrowing owl burrows, 2) removing all suitable burrows outside the 50-foot buffer and up to 50 meters outside of the impact areas as necessary, 3) installing one-way doors on all potential owl burrows within the 50-foot buffer, 4) leaving one-way doors in place for 48 hours to ensure owls have vacated the burrows, and 5) removing the doors and excavating the remaining burrows within the 50-foot buffer.

Implementation of the above measures will reduce potential project impacts to the burrowing owl to a less than significant level under CEQA and ensure compliance with state laws protecting this species.

San Joaquin kit fox : The San Joaquin kit fox relies primarily on grassland or scrubland habitat; however, they can also be found in grazing areas, urban settings, and in areas adjacent to tilled or fallow fields. They require underground dens for protection from predators, heat regulation, and to raise pups, and usually utilize burrows created by other small, burrowing mammals. The highly disturbed nature of the project site and adjacent lands make it unlikely habitat for the species, however it is possible to that the project site and adjacent agricultural fields could be used as foraging or burrowing habitat for the species.

The following measures adapted from the U.S. Fish and Wildlife Service 2011 Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance will be implemented.

Mitigation Measure BIO-3a: Preconstruction surveys for the San Joaquin kit fox shall be conducted on and within 200 feet of the project site, no less than 14 days and no more than 30 days prior to the start of ground disturbance activities on the site. The primary objective is to identify kit fox habitat features (e.g., potential dens and refugia) on and adjacent to the site and evaluate their use by kit foxes. Preconstruction surveys will be repeated following any lapses in construction of 30 days or more.

Mitigation Measure BIO-3b: Should active kit fox dens be detected during preconstruction surveys, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified. A disturbance-free buffer will be established around the burrows in consultation with the USFWS and CDFW, to be maintained until an agency-approved biologist has determined that the burrows have been abandoned.

Mitigation Measure BIO-3c: Construction activities shall be carried out in a manner that minimizes disturbance to kit foxes in accordance with the USFWS Standardized Recommendations. The applicant shall implement all minimization measures presented in the Construction and On-going Operational Requirements section of the Standardized Recommendations, including, but not limited to: restriction of project related vehicle traffic to established roads, construction areas, and other designated areas; inspection and covering of structures (e.g. pipes), as well as installation of escape structures, to prevent the inadvertent entrapment of kit foxes; restriction of rodenticide and herbicide use; and proper disposal of food items and trash.

Mitigation Measure BIO-3d: Prior to the start of construction, the applicant will retain a qualified biologist to conduct a tailgate meeting to train all construction staff that will be involved with the project on the San Joaquin kit fox. This training will include a description of the kit fox and its habitat needs; a report of the occurrence of kit fox in the project vicinity; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of the measures being taken to reduce impacts to the species during project construction and implementation. The training will include a handout with all of the training information included in it. The applicant will use this handout to train any construction personnel that were not in attendance at the first meeting, prior to those personnel starting work on the site.

Mitigation Measure BIO-3e: The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified in writing within three working days in case of the accidental death or injury of a San Joaquin kit fox during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.

Implementation of these measures will reduce potential impacts to the San Joaquin kit fox to a less than significant level under CEQA and ensure compliance with state and federal laws protecting this species.

Tipton kangaroo rat: The Tipton kangaroo rat occupies underground burrows in scrubland habitats within the San Joaquin Valley. The species was once widely distributed throughout the valley; however, their remaining habitat is extremely limited. A Habitat Suitability Study was conducted in 2016 for the Caliofrnia Department of Fish and Wildlife. The report found that the project site and surrounding areas are not considered suitable habitat for the Tipton kangaroo rat. The project will not impact the Tipton kangaroo rat and no mitigation is required.

Western spadefoot: The Western spadefoot is a small toad found in grasslands within the San Joaquin Valley. The species requires wetland for breeding and is typically found within 1,200 ft. of aquatic habitat. Wetland habitat suitable for breeding by the western spadefoot is absent from the project site and adjacent lands. The project would have no impact on western spadefoot and no mitigation is required.

San Joaquin adobe sunburst: The San Joaquin adobe sunburst is found in valley and foothill grassland and cismontane woodland. The flowering plant requires heavy clay soils often found on grassy valley floors and rolling foothills. The soils found on the project site are loams and sandy loams. Therefore, the project site is not suitable habitat for this species. No mitigation is required.

California jewelflower: The California jewelflower is a State and Federally endangered species that can occur in chenopod scrub, pinyon and juniper woodland, and sandy valley and foothill grassland. The species is presumed be extirpated from Tulare County by the CA Department of Fish and Wildlife. It is extremely unlikely for the species to occur on the project site. No mitigation is required.

Implementation of Mitigation Measures BIO1a, BIO-1b, BIO-1c, BIO-2a, BIO-2b, BIO-2c, BIO-3a, BIO-3b, BIO-3c, BIO-3d, and BIO-3e will ensure that impacts to species identified as a candidate, sensitive, or special status will be *less than significant with mitigation incorporation.*

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

No Impact: No riparian or other sensitive habitats occur on the project site, and designated critical habitat is absent from the site and adjacent lands. There is *no impact.*

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through director removal, filling, hydrological interruption, or other means?

No Impact: There are no state or federally protected wetlands within, or adjacent to the project site. For that reason, the project will have *no impact* on federally protected wetlands.

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?

Less than Significant Impact: The project site does not contain any features that would function as a wildlife movement corridor. The project site is bordered to the north and west by residential development and does not connect undisturbed habitat or agricultural lands that would be

otherwise inaccessible. The proposed project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or impede the use of native wildlife nursery sites. The impact is *less than significant.*

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

No Impact: The proposed project is consistent with the goals and policies of the City of Tulare General Plan. The project does no conflict with any local policies or ordinances protecting biological resources and there is *no impact.*

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

No Impact: There are no known Habitat Conservation Plans or Natural Community Conservation Plans in effect within the vicinity of the project. There is *no impact.*

V. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☑	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☑	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☑	☐	☐

Environmental Setting

The history of early settlement in the Tulare County area focused primarily on farming and ranching. European settlement did not occur until the arrival into southern California of land-based expeditions originating from Spanish Mexico starting in the 1760s. European-American settlement of this region began in 1851 with the building of Fort Miller on the San Joaquin River. Unfortunately, hostility grew between American settlers and Native inhabitants, which initially prevented widespread settlement of the area. By the 1860s, such stresses between the two groups were reduced and settlers began to inhabit more regions.

In April, 1852, Tulare County was created, with the county seat initially located at Woodsville. In 1853 the county seat was removed to Fort Visalia, located in the area bounded by Oak, Center, Garden and Bridge streets. In 1872, the Southern Pacific Railroad founded the City of Tulare by beginning construction of the railroad within Tulare County, connecting the San Joaquin Valley with markets in the north and east. During this time, valley residents constructed a series of water conveyance systems (canals, dams, and ditches) across the valley. Ample water supplies and assured rail transport were very important for the new colonies making their living off of fruit, grain and dairy farming.

A Cultural Resources Records Search was conducted by the Southern San Joaquin Valley Information Center on June 15, 2018. The records search stated that there have been no previous cultural resource studies conducted within the project area, however two studies were conducted within a one-half mile radius of the project. According to the records search, there are no recorded cultural resources within the project area or within a one-half mile radius of the project site. The full findings of the cultural records search can be found in Appendix C.

Regulatory Setting

National Historic Preservation Act: The National Historic Preservation Act was adopted in 1966 to preserve historic and archeological sites in the United States. The Act created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation offices.

California Historic Register: The California Historic Register was developed as a program to identify, evaluate, register, and protect Historical Resources in California. California Historical Landmarks are

sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, experimental, or other value. In order for a resource to be designated as a historical landmark, it must meet the following criteria:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).
- Associated with an individual or group having a profound influence on the history of California.
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer or master builder.

City of Tulare General Plan: The City of Tulare General Plan includes the following goals and policies pertaining to cultural and historic resources:

- LU-P13.15 Architectural Heritage. The City shall encourage expressions of its cultural and historic heritage in key central area architectural and other physical design elements (such as murals and/or community art), as well as through encouragement of related cultural events and celebrations.

Goal COS-5 To manage and protect sites of cultural and archaeological importance for the benefit of present and future generations.

- COS-P5.1 Archaeological Resources. The City shall support efforts to protect and/or recover archaeological resources.
- COS-P5.2 Evaluation of Historic Resources. The City shall use appropriate State and Federal standards in evaluating the significance of historical resources that are identified in the city.
- COS-P5.3 Historic Preservation. The City shall encourage the preservation of historic residences and neighborhoods wherever appropriate.
- COS-P5.4 Historic Buildings. The City shall encourage the preservation and adaptive use of historic buildings, particularly in the downtown.
- COS-P5.5 Historic Structures and Sites. The City shall support public and private efforts to preserve, rehabilitate, and continue the use of historic structures, sites, and districts. Where applicable, preservation efforts shall conform to the current Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Building.
- COS-P5.6 Protection of Resources with Potential State or Federal Designations. The City shall encourage the protection of cultural and archaeological sites with potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources. Such sites may be of statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values.
- COS-P5.7 State Historic Building Code. The City shall utilize the State Historic Building Code for designated properties.
- COS-P5.8 Design Compatibility with Historic Structures. The City shall ensure design compatibility of new development within close proximity to designated historic structures and neighborhoods.

- COS-P5.9 Discovery of Archaeological Resources. In the event that archaeological/ paleontological resources are discovered during site excavation, grading, or construction, the City shall require that work on the site be suspended within 100 feet of the resource until the significance of the features can be determined by a qualified archaeologist/ paleontologist. If significant resources are determined to exist, an archaeologist shall make recommendations for protection or recovery of the resource. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City.
- COS-P5.10 Discovery of Human Remains. Consistent with Section 7050.5 of the California Health and Safety Code and CEQA Guidelines (Section 15064.5), if human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). If any human remains are discovered or recognized in any location on the project site, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

    - The Tulare County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and
    - If the remains are of Native American origin,

        - The descendants of the deceased Native Americans have made a timely recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code Section 5097.98.
        - The Native American Heritage Commission was unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified by the commission, or
        - The landowner or his or her authorized representative rejects any timely recommendations of the descendent, and mediation conducted by the Native American Heritage Commission has failed to provide measures acceptable to the landowner.

- COS-P5.11 Impact Mitigation. If preservation of cultural/historical resources is not feasible, the City shall make every effort to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records.
- COS-P5.12 Mitigation Monitoring for Historical Resources. The City shall develop standards for monitoring mitigation measures established for the protection of historical resources prior to development.
- COS-P5.13 Alteration of Sites with Identified Cultural Resources. When planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. The City shall permit development in these areas only after a site-specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and mitigation measures proposed for any impacts the development may have on the resource.

- COS-P5.14 Education Program Support. The City shall support local, state, and national education programs on cultural and archaeological resources.
- COS-P5.15 Solicit Input from Local Native Americans. The City shall solicit input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.
- COS-P5.16 Confidentiality of Archaeological Sites. The City shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect resources that are determined to exist. An archaeologist/paleontologist shall make recommendations for protection or recovery of the resource. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City.
- COS-P5.17 Cooperation of Property Owners. The City shall encourage the cooperation of property owners to treat cultural resources as assets rather than liabilities, and encourage public support for the preservation of these resources.
- COS-P5.18 Archaeological Resource Surveys. Prior to project approval, the City shall require project applicant to have a qualified archaeologist conduct the following activities: (1) conduct a record search at the Regional Archaeological Information Center located at California State University Bakersfield and other appropriate historical repositories, (2) conduct field surveys where appropriate, and (3) prepare technical reports, where appropriate, meeting California Office of Historic Preservation Standards (Archaeological Resource Management Reports).

Discussion

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to in Section 15064.5?

Less Than Significant Impact with Mitigation: A records search was conducted on behalf of the Applicant at the Southern San Joaquin Valley Archaeological Information Center (AIC) to determine if historical or archaeological sites had previously been recorded within the study area, if the project area had been systematically surveyed by archaeologists prior to the initial study, and/or whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive.

The records search stated that there have been no previous cultural resource studies conducted within the project area, however two studies were conducted within a one-half mile radius of the project. According to the records search, there are no recorded cultural resources within the project area or within a one-half mile radius of the project site. The full findings of the cultural records search can be found in Appendix C,

Based on the results of this records search, no previously recorded cultural resources are located within the project site. Although no historical resources were identified, the presence of remains or unanticipated cultural resources under the ground surface is possible. Implementation of Mitigation Measures CUL-1 and CUL-2 will ensure that impacts to this checklist item will be *less than significant with mitigation incorporation*.

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

Less Than Significant Impact with Mitigation: There are no known archaeological resources located within the project area. Implementation of Mitigation Measures CUL-1 and CUL-2 will ensure that potential impact will be *less than significant with mitigation incorporation.*

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

Less Than Significant Impact with Mitigation: There are no known human remains buried in the project vicinity. If human remains are unearthed during development, there is a potential for a significant impact. As such, implementation of Mitigation Measure CUL-2 will ensure that impacts remain *less than significant with mitigation incorporation.*

Mitigation Measures for Impacts to Cultural Resources:

Mitigation Measure CUL-1: If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (NPS 1983) should be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation and Native American consultation may be warranted to mitigate any adverse effects.

Mitigation Measure CUL-2: The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

VI. ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☑	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☑

Environmental Setting

Southern California Edison (SCE) provides electricity services to the region. SCE serves approximately 15 million people throughout a 50,000 square-mile service area in central, coastal, and southern California. SCE supplies electricity to its customers through a variety of renewable and nonrenewable sources. The Table 3-8 below shows the proportion of each energy resource sold to California consumers by SCE in 2017 as compared to the statewide average.

Fuel Type		SCE Power Mix	California Power Mix
Coal		0%	4%
Large Hydroelectric		8%	15%
Natural Gas		20%	34%
Nuclear		6%	9%
Other (Oil/Petroleum Coke/Waste Heat)		0%	<1%
Unspecified Sources of Power[1]		34%	9%
Eligible Renewables	Biomass	0%	2%
	Geothermal	8%	4%
	Small Hydro	1%	3%
	Solar	13%	10%
	Wind	10%	10%
	Total Eligible Renewable	**32%**	**29%**
1. "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.			

Table 3-8. 2017 SCE and State average power resources; Source: California Energy Commission

SCE also offers Green Rate Options, which allow consumers to indirectly purchase up to 100% of their energy from renewable sources. To accomplish this, SCE purchases the renewable energy necessary to meet the needs of Green Rate participants from solar renewable developers.

Southern California Gas (SoCalGas) Company provides natural gas services to the project area. Natural gas is an energy source developed from fossil fuels composed primarily of methane (CH4). Approximately 45% of the natural gas burned in California is used for electricity generation, while 21% is consumed by the residential sector, 25% is consumed by the industrial sector, and 9% is consumed by the commercial sector. Approximately 41,418,644 therms of natural gas is consumed annually within the City of Tulare Urban Development Boundary. The residential sector accounts for 18% of the City's total natural gas consumption.

Regulatory Setting

California Code of Regulations, Title 20: Title 20 of the California Code of Regulations establishes standards and requirements for appliance energy efficiency. The standards apply to a broad range of appliances sold in California.

California Code of Regulations, Title 24: Title 24 of the California Code of Regulations is a broad set of standards designed to address the energy efficiency of new and altered homes and commercial buildings. These standards regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. Title 24 requirements are enforced locally by the City of Selma Building Department.

California Green Building Standards Code (CALGreen): CalGreen is a mandatory green building code that sets minimum environmental standards for new buildings. It includes standards for volatile organic compound (VOC) emitting materials, water conservation, and construction waste recycling

City of Tulare Climate Action Plan (2011): The City of Tulare Climate Action Plan establishes the following Goals and Policies related to energy efficiency and conservation:

Goal 1: Increase energy efficiency and conservation.

1.1 Increase energy efficiency in existing City buildings and facilities through Facility Improvement Measures and by retrofitting Edison-owned streetlights. (City measure)
1.2 Design new City buildings and facilities to exceed California Energy Code requirements by 15%. (City measure)
1.3 Increase energy efficiency in new commercial and residential development and require new residential and commercial development to achieve enhanced energy efficiency and exceed California Energy Code requirements by 15%.
1.4 Reduce the urban heat island effect to cool the local climate and reduce energy consumption by maintaining current rates of public tree planting and increased shading on private property, high albedo surfaces, and cool surfaces.
1.5 Achieve a 20% reduction in water use by 2020 (20X2020) to reduce energy consumed for groundwater pumping.
1.6 Facilitate energy efficiency improvements within the residential building stock.
1.7 Support commercial and industrial profitability and energy efficiency through programs and partnerships.
1.8 Promote voluntary energy efficiency retrofits in the commercial and industrial sectors through financing and incentive programs.
1.9 Require stationary equipment in new industrial development to comply with best practice energy efficiency standards.

1.10 Continue to partner in regional initiatives that encourage achievement of regional energy efficiency targets.

Discussion

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact: While construction of the proposed project will result in additional energy consumption, this energy use is not unnecessary or inefficient.

During project construction there would be an increase in energy consumption related to worker trips and operation of construction equipment. This energy use is justified by the energy-efficient nature of the proposed project and would be limited to the greatest extent possible through compliance with local, state, and federal regulations.

Once construction is complete, the project is expected to achieve net zero energy consumption. The proposed project is subject to the California New Residential Zero Net Energy Action Plan 2015-2020. This plan establishes a goal for all residential buildings built after January 1, 2020 to be zero net energy. The California Energy Commission is responsible for the development and enforcement of specific strategies to achieve this goal. These strategies are implemented through Title 24, Part 6 of the California Building Code, which requires developers to include certain measures (including solar panels on all new residential buildings) to achieve required building efficiency standards.

Because the proposed project will comply with all energy efficiency standards required under Title 24, Section 6, and these standards were specifically developed to achieve net zero energy for residential projects, it can be presumed that the project will achieve net zero energy. The impact is *less than significant.*

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact: The proposed project will not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. The project will be designed to meet Title 24 and CALGreen requirements. Compliance with these standards will be enforced by the City of Tulare Building Division. There is *no impact*

VII. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☑	☐
ii) Strong seismic ground shaking?	☐	☐	☐	☑
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☑
iv) Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct and indirect risks to life or property?	☐	☐	☐	☑
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☑
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☑	☐	☐

Environmental Setting

Geologic Stability and Seismic Activity

- **Seismicity**: Tulare County is considered to be a low to moderate earthquake hazard area. The San Andreas Fault is the longest and most significant fault zone in California and is approximately 40 miles west of the Tulare County Boundary. Owens Valley fault zone is the only active fault located within Tulare County. Section 5 of the 2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan identifies the project site as likely to experience low to moderate shaking from earthquakes, and may experience higher levels if an earthquake were to occur in or near the County. Ground shaking can result in other geological impacts, including liquefaction, landslides, lateral spreading, subsidence, or collapse.

- **Liquefaction**: Liquefaction is a phenomenon whereby unconsolidated and/or near-saturated soils lose cohesion and are converted to a fluid state as a result of severe vibratory motion. The relatively rapid loss of soil shear strength during strong earthquake shaking results in temporary, fluid-like behavior of the soil, which can result in landslides and lateral spreading. No specific countywide assessment of liquefaction has been performed; however the 2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan identifies the risk of liquefaction within the county as low because the soil types in the area either too coarse or too high in clay content to be suitable for liquefaction.

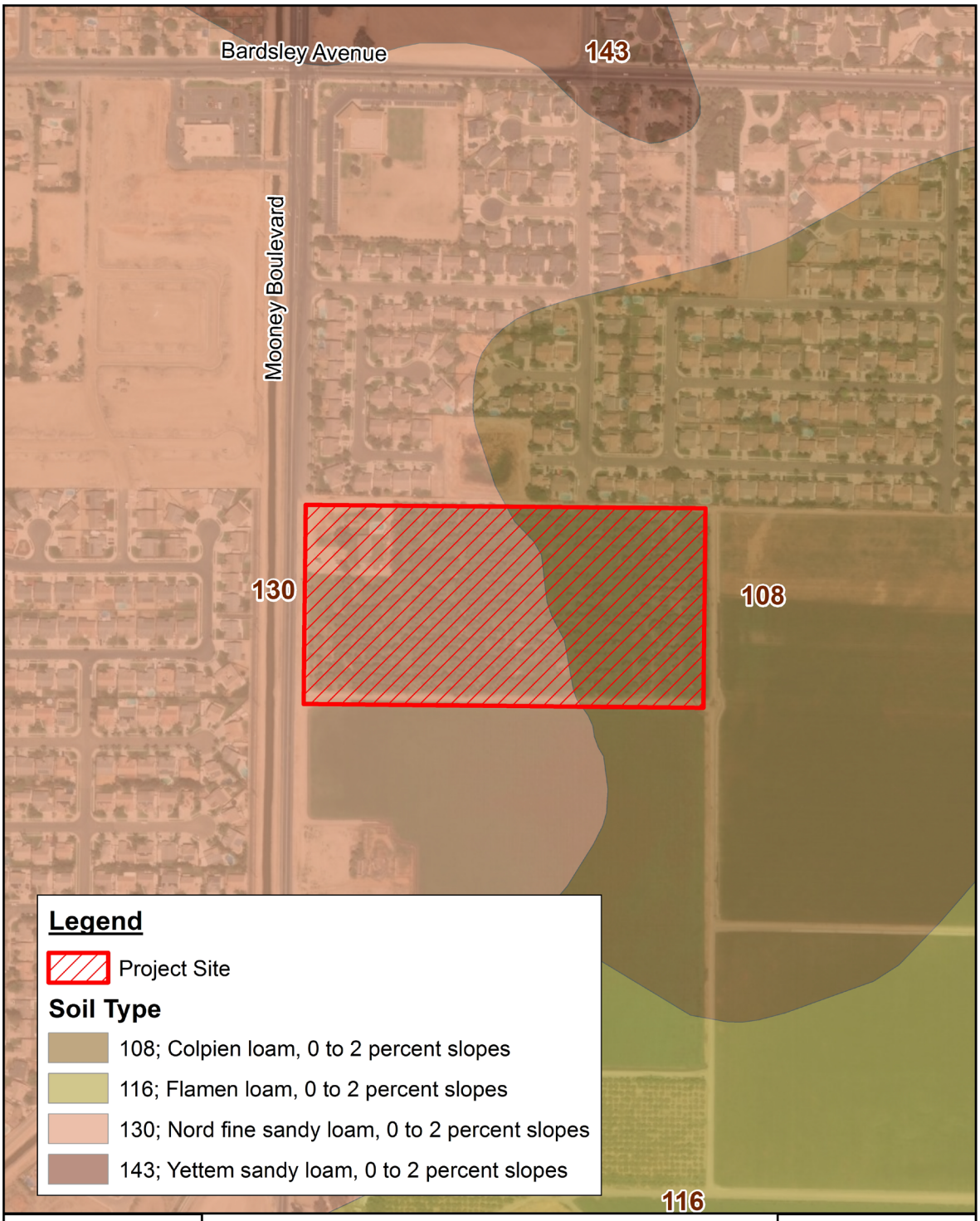
- **Landslides**: Landslides refer to a wide variety of processes that result in the downward and outward movement of soil, rock, and vegetation under gravitational influence. Landslides can be caused by both natural and human-induced changes in slope stability and often accompany other natural hazard events, such as floods, wildfire, or earthquake. Eastern portions of the County are considered to be at a higher risk of landslides where steep slopes are present. However, the majority of the County, including the proposed project site, is considered to be at low risk of landslides and mudslides because of its flat topography. The 2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan states that occurrence of landslide events within populated areas of Tulare County is unlikely.

- **Subsidence**: Land Subsidence refers to the vertical sinking of land as a result of either manmade or natural underground voids. Subsidence has occurred throughout the Central Valley at differing rates since the 1920's as a result of groundwater, oil, and gas withdrawal. During drought years, Tulare County is prone to accelerated subsidence, with some areas sinking up to 28 feet. Although western portions of the County show signs of deep and shallow subsidence, the majority of the County, including the proposed project site, is not considered to be at risk of subsidence related hazards.

Soils Involved in Project: The proposed project involves construction on two soil types. The properties of these soils are described briefly below:

- **Colpien loam, 0 to 2 percent slopes:** The Colpien series consists of very deep, moderately well drained soils formed primarily from granitic rocks. The Colpien series a member of a fine-loamy, mixed, superactive, thermic Calcic Pachic Haplozerolls taxonomic class and are found on terraces in alluvium.

- **Nord fine sandy loam, 0 to 2 percent slopes:** The Nord series consists of very deep, well drained soils formed primarily from granitic and sedimentary rocks. The Nord series is a member of a coarse-loamy, mixed, superactive, thermic cumulic Haploxerolls taxonomic class and are found in flood plains and alluvial fans.



Soils Map
Fernjo Estates

Figure 3-3

Regulatory Setting

California Building Code: The California Building Code contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance. CBC provisions provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures and certain equipment.

City of Tulare General Plan: The Safety Element of the City of Tulare General Plan includes the following goals and policies regarding soils and geology.

- SAF-P1.4 Building and Codes. Except as otherwise allowed by State law, the City shall ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).
- SAF-P1.7 Site Investigations. The City shall require applicants to conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding.

Goal SAF-4 To protect people and property from seismic and geotechnical hazards.

- SAF-P4.4 Alquist-Priolo Act Compliance. The City shall not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones (pursuant to and as determined by the Alquist-Priolo Earthquake Fault Zoning Act; Public Resources Code, Chapter 7.5) unless the specific provisions of the Act and Title 14 of the California Code of Regulations have been satisfied.
- SAF-P4.5 Subsidence. The City shall confirm that development is not located in any known areas of active subsidence. If urban development may be located in such an area, a special safety study will be prepared and needed safety measures implemented.

Discussion

a) Would the project 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.

Less than Significant Impact: According to the Tulare County Multi-Hazard Mitigation Plan, no active faults underlay the project site. Although the project is located in an area of relatively low seismic activity, the project could be affected by ground shaking from nearby faults. The potential for strong seismic ground shaking on the project site is not a significant environmental concern due to the infrequent seismic activity of the area and distance to the faults. The project has no potential to indirectly or directly cause the rupture of an earthquake fault. Therefore, the risk of loss, injury or death involving a rupture of a known earthquake fault would be *less than significant.*

ii. Strong seismic ground shaking?

No Impact: According to the Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan, the project site is located in an area of relatively low seismic activity. The proposed project does not include any activities or components which could feasibly cause strong seismic ground shaking, either directly or indirectly. There is *no impact.*

iii. Seismic-related ground failure, including liquefaction?

No Impact: No specific countywide assessment of liquefaction has been performed; however the Tulare County Multi-Hazard Mitigation Plan identifies the risk of liquefaction within the county as low because the soil types are unsuitable for liquefaction. The area's low potential for seismic activity would further reduce the likelihood of liquefaction occurrence. There is *no impact.*

iv. Landslides?

No Impact: The proposed project site is generally flat and there are no hill slopes in the area. As a result, there is almost no potential for landslides. No geologic landforms exist on or near the site that would result in a landslide event. There is *no impact.*

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

Less Than Significant Impact: Because the project site is relatively flat, the potential for erosion is low. However, construction-related activities and increased impermeable surfaces can increase the probability for erosion to occur. Construction-related impacts to erosion will be temporary and subject to best management practices (BMPs) required by SWPPP, which are developed to prevent significant impacts related to erosion from construction. After construction, stormwater will initially be directed to a temporary basin to prevent erosion from occurring on- or off-site. The project will ultimately tie into the City's stormwater management system. Because impacts related to erosion would be temporary and limited to construction and required best management practices would prevent significant impacts related to erosion, the impact will remain *less than significant.*

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

No Impact: The soils associated with the project site are considered stable and have a low capacity for landslides, lateral spreading, subsidence, liquefaction or collapse. Because the project area is considered to be stable, and this project would not result in a substantial grade change to the topography to the point that it would increase the risk of landslides, lateral spreading, subsidence, liquefaction or collapse, there is *no impact.*

d) Would the project 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?

No Impact: Expansive soils contain large amounts of clay, which absorb water and cause the soil to increase in volume. Conversely, the soils associated with the proposed project site are granular,

well-draining, and therefore have a limited ability to absorb water or exhibit expansive behavior. Because the soils associated with the project are not suitable for expansion, implementation of the project will pose no direct or indirect risk to life or property caused by expansive soils and there is *no impact.*

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

No Impact: The proposed project will have access to existing City wastewater infrastructure and would not require the use of septic tanks or alternative wastewater disposal systems. There is *no impact.*

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

Less Than Significant Impact with Mitigation: There are no unique geologic features and no known paleontological resources located within the project area. However, there is always the possibility that paleontological resources may existing below the ground surface. Implementation of Mitigation Measures CUL-1 and CUL-2 will ensure that any impacts resulting from project implementation remain *less than significant with mitigation incorporation.*

VIII. GREENHOUSE GAS EMISSIONS

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

Environmental Setting

Natural processes and human activities emit greenhouse gases. The presence of GHGs in the atmosphere affects the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 34ºC cooler. However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

The effect of greenhouse gasses on earth's temperature is equivalent to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide, methane, nitrous oxide, ozone, chlorofluorocarbons, hydro chlorofluorocarbons, and hydro fluorocarbons, per fluorocarbons, sulfur and hexafluoride. Some gases are more effective than others. The Global Warming Potential (GWP) has been calculated for each greenhouse gas to reflect how long it remains in the atmosphere, on average, and how strongly it absorbs energy. Gases with a higher GWP absorb more energy, per pound, than gases with a lower GWP, and thus contribute more to global warming. For example, one pound of methane is equivalent to twenty-one pounds of carbon dioxide.

GHGs as defined by AB 32 include the following gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHGs as defined by AB 32 are summarized in Table 3-9. Each gas's effect on climate change depends on three main factors. The first being the quantity of these gases are in the atmosphere, followed by how long they stay in the atmosphere and finally how strongly they impact global temperatures.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Methane (CH4)	Is a flammable gas and is the main component of natural gas	12 years	21	Emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Carbon dioxide (CO2)	An odorless, colorless, natural greenhouse gas.	30-95 years	1	Enters the atmosphere through burning fossil fuels (coal, natural gas and oil), solid waste, trees and wood products, and also as a result of certain chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
Chloro-fluorocarbons	Gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are non-toxic nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	55-140 years	3,800 to 8,100	Were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone.
Hydro-fluorocarbons	A man-made greenhouse gas. It was developed to replace ozone-depleting gases found in a variety of appliances. Composed of a group of greenhouse gases containing carbon, chlorine an at least one hydrogen atom.	14 years	140 to 11,700	Powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for stratospheric ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases.
Nitrous oxide (N2O)	Commonly known as laughing gas, is a chemical compound with the formula N2O. It is an oxide of nitrogen. At room temperature, it is a colorless, non-flammable gas, with a slightly sweet odor and taste. It is used in surgery and dentistry for its anesthetic and analgesic effects.	120 years	310	Emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
Pre-fluorocarbons	Has a stable molecular structure and only breaks down by ultraviolet rays about 60 kilometers above Earth's surface.	50,000 years	6,500 to 9,200	Two main sources of pre-fluorocarbons are primary aluminum production and semiconductor manufacturing.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Sulfur hexafluoride	An inorganic, odorless, colorless, and nontoxic nonflammable gas.	3,200 years	23,900	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing and as a tracer gas.

Table 3-9. Greenhouse Gasses; Source: EPA, Intergovernmental Panel on Climate Change

In regards to the quantity of these gases are in the atmosphere, we first must establish the amount of particular gas in the air, known as Concentration, or abundance, which are measured in parts per million, parts per billion and even parts per trillion**.** To put these measurements in more relatable terms, one part per million is equivalent to one drop of water diluted into about 13 gallons of water, roughly a full tank of gas in a compact car. Therefore, it can be assumed larger emission of greenhouse gases lead to a higher concentration in the atmosphere.

Each of the designated gases described above can reside in the atmosphere for different amounts of time, ranging from a few years to thousands of years. All of these gases remain in the atmosphere long enough to become well mixed, meaning that the amount that is measured in the atmosphere is roughly the same all over the world regardless of the source of the emission.

Regulatory Setting

AB 32: AB 32 set the 2020 greenhouse gas emissions reduction goal into law. It directed the California Air Resources Board to begin developing discrete early actions to reduce greenhouse gases while also preparing a scoping plan to identify how best to reach the 2020 limit. The reduction measures to meet the 2020 target are to be adopted by the start of 2011.

SB 1078, SB 107 and Executive Order S-14-08: SB 1078, SB 107, and Executive Order S-14-08 require California to generate 20% of its electricity from renewable energy by 2017. SB 107 then changes the 2017 deadline to 2010. Executive Order S-14-08 required that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020.

City of Tulare Climate Action Plan: The City of Tulare Climate Action Plan identifies the following goals and policies to reduce GHG emissions related to new development:

> **Measure 1.3: Energy Efficiency in New Development: Increase energy efficiency in new commercial and residential development and require new residential and commercial development to achieve enhanced energy efficiency and exceed California Energy Code requirements by 15%.**
>
> - 1.3.1 Implement the minimum CALGreen standards for energy efficiency contained in 2008 Title 24 standards, effective January 1, 2010.
> - 1.3.2 By 2015, amend the building code and other codes as applicable to require new construction to meet CALGreen measures (A4.203.1 and A.5.203.1.1), as applicable. [At this time, CALGreen Tier 1 mandatory measures A4.203.1 and A.5.203.1.1 1 require new

residential and nonresidential buildings, respectively, to exceed California Energy Code requirements, based on the 2008 Energy Efficiency Standards, by 15 percent.]

- 1.3.3 Work with Southern California Edison to implement smart grid technology in new development.

Discussion

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

Less Than Significant Impact: Greenhouse gas emissions for the construction and operation of the proposed project were modeled using the California Emissions Estimator Model (CalEEMod). The full CalEEMod report can be found in Appendix A.

Construction: Greenhouse gasses would be generated during construction from activities including site demolition, site preparation, grading, building construction, application of architectural coatings, and paving. The CalEEMod Emissions report predicts that this project will create a maximum of 367.2 MT of CO2e emissions per year during construction. Because the SJVAPCD does not have numeric thresholds for assessing the significance of construction-related GHG emissions, predicted emissions from project construction were compared to SCAQMD thresholds for construction related GHG emissions. The SCAQMD currently has a threshold of 10,000 metric tons of CO2e per year for construction emissions amortized over a 30-year project lifetime. Because project construction would generate far less GHG emissions than this threshold, impacts related to GHG emissions during project construction would be less than significant.

Operation: Implementation of the proposed project would result in long-term greenhouse gas emissions associated with area sources, such as natural gas consumption, landscaping, applications of architectural coatings, and consumer products, as well as mobile emissions.

The U.S. Environmental Protection Agency published a rule for the mandatory reporting of greenhouse gases (GHG) from sources that in general emit 25,000 MT or more of CO2e per year. Project GHG emissions were calculated using CalEEMod based on 18.1 acres of development with 80 single family residential units. The project is estimated to produce 901.94 MT of C02e per year, which is well below the 25,000 MT threshold for greenhouse gas emissions.

Because the GHG emissions related to construction and operation of the proposed project are below accepted thresholds of significance the impact is considered *less than significant.*

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

No Impact: The proposed project will comply with all Federal, State, and Local rules pertaining to the regulation of greenhouse gas emissions. In addition, the project will implement Best Performance Standards developed by the SJVAPCD. Projects implementing Best Performance Standards are determined to have a less than significant impact on global climate change. The project will not conflict with any plan, policy, or regulation developed to reduce GHG emissions. There is *no impact.*

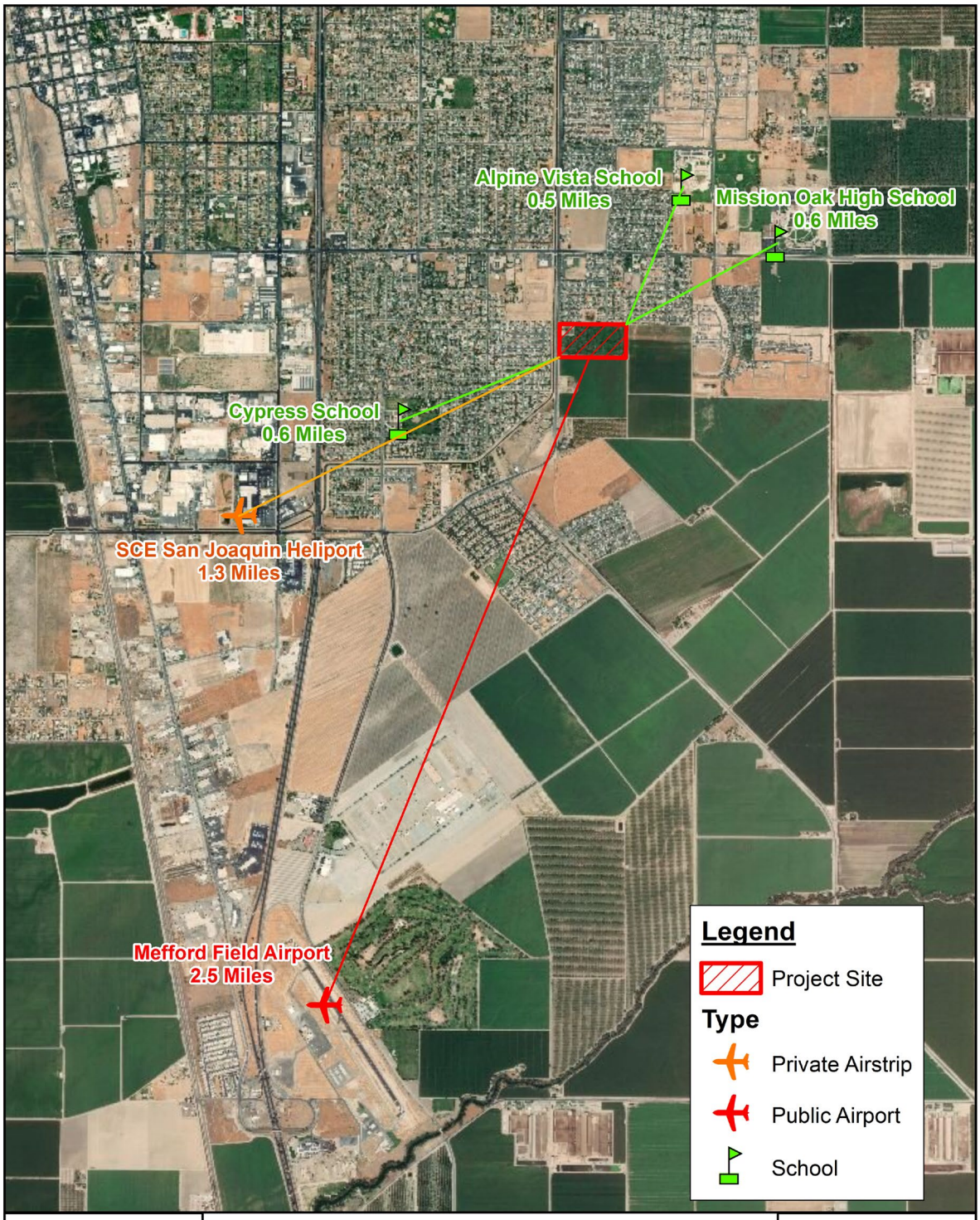
IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☑
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☑
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard or excessive noise to the public or the environment?	☐	☐	☐	☑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
g) Expose people or structures, either directly or indirectly, to significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☑

Environmental Setting

The proposed project site is located approximately 0.5 miles from the nearest school, 1.3 miles from the nearest private airstrip, and 2.5 miles from the nearest public airport. Alpine Vista School is located north-east of the project site. SCE San Joaquin Heliport and Mefford Field Airport are both located southwest of the project site. In addition to Alpine Vista School, two other schools, Mission Oak High School and Cypress School, are within one mile of the proposed project site.

The Department of Toxic Substances Control's (DTSC's) Envirostor was used to identify any sites known to be associated with releases of hazardous materials or wastes within the project area. This research confirmed that the project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.



Distance to Schools and Airports
Fernjo Estates

Figure 3-4

Regulatory Setting

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S. Code [U.S.C.] §9601 et seq.). The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or the Superfund Act) authorizes the President to respond to releases or threatened releases of hazardous substances into the environment.

Occupational Safety and Health Administration. The Occupational Safety and Health Administration (OSHA) sets and enforces Occupational Safety and Health Standards to assure safe working conditions. OSHA provides training, outreach, education, and compliance assistance to promote safe workplaces. The proposed Project would be subject to OSHA requirements during construction, operation, and maintenance.

Toxic Substances Control Act of 1976 (15 U.S.C. §2601 et seq.). The Toxic Substance Control Act was enacted by Congress in 1976 and authorizes the EPA to regulate any chemical substances determined to cause an unreasonable risk to public health or the environment.

Hazardous Waste Control Law, Title 26. The Hazardous Waste Control Law creates hazardous waste management program requirements. The law is implemented by regulations contained in Title 26 of the California Code of Regulations (CCR), which contains requirements for the following aspects of hazardous waste management:

- Identification and classification;
- Generation and transportation;
- Design and permitting of recycling, treatment, storage, and disposal facilities;
- Treatment standards;
- Operation of facilities and staff training; and
- Closure of facilities and liability requirements.

California Code of Regulations, Title 22, Chapter 11. Title 22 of the California Code of Regulations contains regulations for the identification and classification of hazardous wastes. The CCR defines a waste as hazardous if it has any of the following characteristics: ignitability, corrosivity, reactivity, and/or toxicity.

California Emergency Services Act. The California Emergency Services Act created a multi-agency emergency response plan for the state of California. The Act coordinates various agencies, including CalEPA, Caltrans, the California Highway Patrol, regional water quality control boards, air quality management districts, and county disaster response offices.

Hazardous Materials Release Response Plans and Inventory Law of 1985. Pursuant to the Hazardous Materials Release Response Plans and Inventory Law of 1985, local agencies are required to develop "area plans" for response to releases of hazardous materials and wastes. Tulare County maintains a Hazardous Material Incident Response Plan to coordinate emergency response agencies for incidents and requires the submittal of business plans by persons who handle hazardous materials.

City of Tulare General Plan: The City of Tulare General Plan includes the following goals and policies pertaining to hazards and hazardous materials:

- LU-P11.19 Recycling of Hazardous Materials. The City shall require the proper disposal and recycling of hazardous materials.

Goal SAF-1 To regulate future development to ensure the protection of public health and safety from hazards and hazardous materials and the adequate provision of emergency services.

Goal SAF-5 To protect people from the harmful effects of exposure to hazardous materials.

- SAF-P5.2 Hazardous Materials Studies. The City shall ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project. Recommendations required to satisfy federal or State cleanup standards outlined in the studies will be implemented as part of the construction phase for each project.
- SAF-P5.3 Transporting Hazardous Materials. The City shall strive to ensure hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and federal safety standards.

Discussion

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact: Project construction activities may involve the use and transport of hazardous materials. The use of such materials would be considered minimal and would not require these materials to be stored in bulk form. The project does not involve the use or storage of hazardous substances other than the small amounts of pesticides, fertilizers, and cleaning agents required for normal maintenance of structures and landscaping. The project must adhere to applicable zoning and fire regulations regarding the use and storage of any hazardous substances. Further, there is no evidence that the site has been used for underground storage of hazardous materials. Therefore, the proposed project will have less than significant impacts to hazardous materials.

b) Would the project 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?

No Impact: There is no reasonably foreseeable condition or incident involving the project that could result in release of hazardous materials into the environment. There are no impacts.

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

No Impact: The project is not located within ¼ mile of an existing or proposed school, and there is no reasonably foreseeable condition or incident involving the emission, handling, or disposal of hazardous materials, substances, or waste that would affect areas within ¼ miles of existing or proposed school sites. There is *no impact.*

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact: The project site is not listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the Department of Toxic Substances Control. There would be *no impact.*

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

No Impact: The proposed project is not located within an airport land use plan and is not within two miles of a public airport. Mefford Field Airport is the nearest public airport to the project site and is located approximately 2.5 miles away. Implementation of the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area. There is no impact.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact: The County's design and environmental review procedures shall ensure compliance with emergency response and evacuation plans. In addition, the site plan will be reviewed by the Fire Department per standard City procedure to ensure consistency with emergency response and evacuation needs. Therefore, the proposed project would have *no impact* on emergency evacuation.

g) Would the project expose people or structures, either directly or indirectly, to significant risk of loss, injury or death involving wildland fires?

No Impact: The land surrounding the project site is developed with urban, suburban, and agricultural uses and are not considered to be wildlands. Additionally, the 2017 Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan finds that fire hazards within the City of Tulare, including the proposed project site, have low frequency, limited extent, limited magnitude, and low significance. The proposed project would not expose people or structures to significant risk of loss, injury or death involving wildland fires and there is *no impact.*

X. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise sustainably degrade surface or ground water quality?	☐	☑	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☑	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would:	☐	☐	☑	☐
(i) result in substantial erosion or siltation on- or off-site?	☐	☐	☑	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☐	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☐
(iv) impede or redirect flood flows?	☐	☐	☐	☐
d) In flood hazard, tsunami, or seiche zones risk the release of pollutants due to project inundation?	☐	☐	☐	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater movement plan?	☐	☐	☐	☐

Environmental Setting

Hydrologic System: The proposed project site is located in the Tulare Lake Hydrologic Region, which covers 10.9 million acres south of the San Joaquin River. The proposed project site lies within the San Joaquin Valley Groundwater Basin. The San Joaquin Valley Groundwater Basin is divided into seven sub-basins. The proposed project site is located within the Kaweah Subbasin. The subbasin lies between the Kings Groundwater Subbasin on the north, the Tule Groundwater Subbasin on the south, the Tulare Lake subbasin on the west, and crystalline bedrock of the Sierra Nevada foothills on the east. The area is comprised mostly of lands in the Kaweah Delta Water Conservation District. Major rivers in the subbasin include the St. Johns and lower Kaweah Rivers; although the Kaweah River is considered the primary surface water source for groundwater recharge.

Groundwater: The City of Tulare consists of 29 active wells, a 125,000 gallon water storage tower, 235 miles of water transmission and distribution mains, and 2,250 fire hydrants. The city's water supply comes from a series of deep groundwater wells scattered throughout the city and pumped into an

interconnected water system. Additionally, the City of Tulare, City of Visalia, and the Tulare Irrigation District have joined a Joint Power Authority (JPA) Agreement to form the Mid-Kaweah Groundwater Sustainability Agency (GSA). The JPA states the Board of Directors is responsible for the development, adoption, and implementation of a Groundwater Sustainability Plan as required by the Sustainable Groundwater Management Act of 2014.

Surface Waters: None of the City's potable water is supplied through surface water. However, the City of Tulare does purchase surface water from the Tulare Irrigation District to be used for groundwater recharge.

Regulatory Setting

Clean Water Act: The Clean Water Act (CWA) is enforced by the U.S. EPA and was developed in 1972 to regulate discharges of pollutants into the waters of the United States. The Act made it unlawful to discharge any pollutant from a point source into navigable waters unless a National Pollution Discharge Elimination System (NPDES) Permit is obtained.

Central Valley RWQCB: The proposed project site is within the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB). The Central Valley TWQCB requires a National Pollution Discharge Elimination System (NPDES) Permit and Stormwater Pollution Prevention Plan (SWPPP) for projects disturbing more than one acre of total land area. Because the project is greater than one acre, a NPDES Permit and SWPPP will be required.

City of Tulare General Plan: The City of Tulare General Plan contains the following goals and policies related to water resources:

- LU-P11.3 System Expansion. The City shall require new development be responsible for expansion of existing facilities such as water systems, sewer systems, storm drainage systems, parks and other capital facilities made necessary to serve the new development.
  LU-P11.4 Water Supply System. The City shall require that water supply systems be adequate to serve the size and configuration of land developments. Standards as set forth in the subdivision ordinance shall be maintained and improved as necessary.
- LU-P11.5 Water Supply for New Development. For all new development, prior to the approval of any subdivision applications, the developers shall assure that there is sufficient available water supply to meet projected buildout.
- LU-P11.6 Adequate System Maintenance. The City shall require maintenance funding for streets, storm drainage, and ponding basins for new development.
- LU-P11.7 Adequate Infrastructure Capacity. The City shall only approve new development when it can be demonstrated by the applicant that adequate system capacity in the service area is or will be available to handle increases related to the project.
- LU-P11.9 Adequate City Service Capacity. The City shall only approve new development when it can be demonstrated by the applicant that adequate public service capacity in the area is or will be available to handle increases related to the project. School capacity will be discussed in the review of each development, and the City will ensure early coordination with the school districts serving the site. School capacity will be addressed as allowed under State law.
- LU-P11.17 Fair Share Improvements. The City shall ensure new development is required to participate on a fair-share basis in the completion of improvements to the existing sewer

system, and/or the construction of new sewer trunk lines as described in the City's adopted Sewer Master Plan.

- COS-P1.1 Regional Groundwater Protection. The City shall work with Tulare County and special districts to help protect groundwater resources from overdraft by promoting water conservation and groundwater recharge efforts.
- COS-P1.8 Water Conservation. The City shall promote efficient water use and reduced water demand by:
  a. Requiring water-conserving design and equipment in new construction;
  b. Encouraging water-conserving landscaping and other conservation measures; and
  c. Encourage retrofitting existing development with water conserving devices.
  d. Providing public education programs.
  e. Distributing outdoor lawn watering guidelines.
  f. Promoting water audit and leak detection programs.
  g. Enforcing water conservation programs.
- COS-P1.11 Water for Irrigation. Whenever possible, the City shall require new development to use recycled or non-potable water for irrigation in landscaped areas.

Discussion

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant with Mitigation: The project will result in less than significant impacts to water quality due to potentially polluted runoff generated during construction activities. Construction would include excavation, grading, and other earthwork that may occur across most of the 18 acre project site. During storm events, exposed construction areas across the project site may cause runoff to carry pollutants, such as chemicals, oils, sediment, and debris. In addition, soil erosion may result Implementation of a Stormwater Pollution Prevention Plan (SWPPP) will be required for the project. A SWPPP identifies all potential sources of pollution that could affect stormwater discharges from the project site and identifies best management practices (BMPs) related to stormwater runoff. There may be chemicals or surfactants used during project maintenance or operations, so discharge could impact water quality standards. Therefore, the impacts are *less than significant with mitigation.*

Mitigation Measure HYD-1: Prior to the issuance of any construction/grading permit and/or the commencement of any clearing, grading, or excavation, the Applicant shall submit a Notice of Intent (NOI) for discharge from the Project site to the California SWRCB Storm Water Permit Unit.

- Prior to issuance of grading permits for Phase 1 the Applicant shall submit a copy of the NOI to the City.
- The City shall review noticing documentation prior to approval of the grading permit. City monitoring staff will inspect the site during construction for compliance.

Mitigation Measure HYD-2: The Applicant shall require the building contractor to prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to the City 45 days prior to the start of work for approval. The contractor is responsible for understanding the State General Permit and instituting the SWPPP during construction. A SWPPP for site construction shall be developed

prior to the initiation of grading and implemented for all construction activity on the Project site in excess of one (1) acre, or where the area of disturbance is less than one acre but is part of the Project's plan of development that in total disturbs one or more acres. The SWPPP shall identify potential pollutant sources that may affect the quality of discharges to storm water and shall include specific BMPs to control the discharge of material from the site. The following BMP methods shall include, but would not be limited to:

- Dust control measures will be implemented to ensure success of all onsite activities to control fugitive dust;
- A routine monitoring plan will be implemented to ensure success of all onsite erosion and sedimentation control measures;
- Provisional detention basins, straw bales, erosion control blankets, mulching, silt fencing, sand bagging, and soil stabilizers will be used;
- Soil stockpiles and graded slopes will be covered after two weeks of inactivity and 24 hours prior to and during extreme weather conditions; and,
- BMPs will be strictly followed to prevent spills and discharges of pollutants onsite, such as material storage, trash disposal, construction entrances, etc.

b) **Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

Less than Significant Impact: The project would result in a reduction in percolation to the groundwater basin, because the project would create an increase in the amount of paved and impervious surfaces. However, this impact would be greatly reduced by the temporary storm basin included in the project. The project will ultimately tie into the City's stormwater system, which is designed to direct runoff water to groundwater recharge areas. The project has been reviewed by the City of Tulare Public Works Director and Engineer who have determined that the Project will not have a significant impact on the existing water system. The project would have a *less than significant impact* on groundwater resources.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would:

i. Result in substantial erosion or siltation on- or off-site?

Less than Significant Impact: The proposed project includes the construction and operation of 80 single-family residential units on approximately 18.1 acres. The construction of these units may be considered an alteration in drainage patterns, however this would not result in substantial erosion or siltation on- or off-site. A Stormwater Pollution Prevention Plan (SWPPP) will be implemented during project construction. SWPPPs include mandated erosion control measures, which are developed to prevent significant impacts related to erosion caused by runoff during construction. The impact is *less than significant.*

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less than Significant Impact: Because the project would result in an increase of impervious surfaces within the project site, an increase in surface runoff may occur. However, this impact would be greatly reduced by the temporary storm basin included in the project. The project will ultimately tie into the City's stormwater system, which is designed to direct runoff water to groundwater recharge areas. The project has been reviewed by the City of Tulare Public Works Director and the City's Engineer who have determined that the implementation of the proposed Project will not result in substantial flooding on- or off-site. The project will have a *less than significant impact.*

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant with Mitigation: The proposed project would include the construction and operation of 80 single-family residential units on approximately 18.1 acres of agricultural land. Existing agricultural operations consist of plowing of the soil and using fertilizers and pesticides. These activities contribute to polluted runoff, however most of the agricultural runoff is naturally cleaned through soil percolation. Replacing agricultural uses with urban residential uses would change the quality and volume of runoff with the addition of oil, grease, and other urban pollutants. New impervious surfaces, such as the roads and driveways, collect automobile derived pollutants such as oils, greases, rubber and heavy metals. During storms, pollutants would be transported into the drainage systems by surface runoff. Due to the increase in population and impervious surfaces within the site, there would be an increase in pollutants in surface runoff. As a result, an increase in point source and non-point source pollution may result from increases in urban development. The project is not a source which would otherwise create substantial degradation of water quality. Upon compliance with the City's SWMP, Engineering Standards, General Plan, and City Ordinance requirements, as well as mitigation measures, impacts related to water quality would be *less than significant with mitigation incorporation.*

> **Mitigation Measure HYD-3:** A Development Maintenance Manual for the Project shall include comprehensive procedures for maintenance and operations of any stormwater facilities to ensure long-term operation and maintenance of post-construction stormwater controls. The maintenance manual shall require that stormwater BMP devices be inspected, cleaned and maintained in accordance with the manufacturer's maintenance conditions. The manual shall require that devices be cleaned prior to the onset of the rainy season (i.e., mid-October) and immediately after the end of the rainy season (i.e., mid-May). The manual shall also require that all devices be checked after major storm events. The Development Maintenance Manual shall include the following:
>
> - Runoff shall be directed away from trash and loading dock areas;
> - Bins shall be lined or otherwise constructed to reduce leaking of liquid wastes;
> - Trash and loading dock areas shall be screened or walled to minimize offsite transport of trash; and,
> - Impervious berms, trench catch basin, drop inlets, or overflow containment structures nearby docks and trash areas shall be installed to minimize the potential for leaks, spills or wash down water to enter the drainage system.

iv. Impede or redirect flood flows?

No Impact: The proposed project site is not located within a 100-year flood hazard area. There would be *no impacts.*

d) Would the project, in flood hazard, tsunami, or seiche zones, risk the release of pollutants due to project inundation?

No Impact: The proposed project is located inland and not near an ocean or large body of water, therefore, would not be affected by a tsunami. The proposed project is located in a relatively flat area and would not be impacted by inundation related to mudflow. Since the project is located in an area that is not susceptible to inundation, the project would not risk release of pollutants due to project inundation. As such, there is *no impact.*

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact: The proposed project is located inland and not near a large body of water or ocean, therefore, would not be affected by a seiche or tsunami. Additionally, the project site is located on a relatively flat land and would not be impacted by inundation related to mudflow. Therefore, there would have *no impacts.*

XI. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☑
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑

Environmental Setting

The proposed project site is located with the City of Tulare Sphere of Influence, directly south of the City of Tulare border. The project site is currently zoned by Tulare County as AE-20, or Exclusive Agriculture with a 20-acre minimum lot size. The project site is to be pre-zoned by the City of Tulare as R-1-6. The parcels involved in the proposed project are designated by the City of Tulare General Plan as Low Density Residential.

The proposed basin site is bounded by irrigated agriculture to the east, Mooney Blvd. to the west, single-family residential neighborhood to the north, and irrigated agriculture to the south.

Regulatory Setting

Tulare County General Plan: The proposed project site is currently zoned by Tulare County as AE-20. The project proposes to annex the project site into the City of Tulare.

City of Tulare General Plan: The proposed project site is designated as Low Density Residential under the City of Tulare General Plan. This designation establishes areas for single-family residences in a suburban configuration. Uses typically allowed include detached single-family homes, secondary dwellings, and residential support uses such as churches, schools, and other necessary public utilities and safety facilities. This designation has a density range of 3.1-7.0 DU/Acre and a minimum lot size of 4,000 square feet

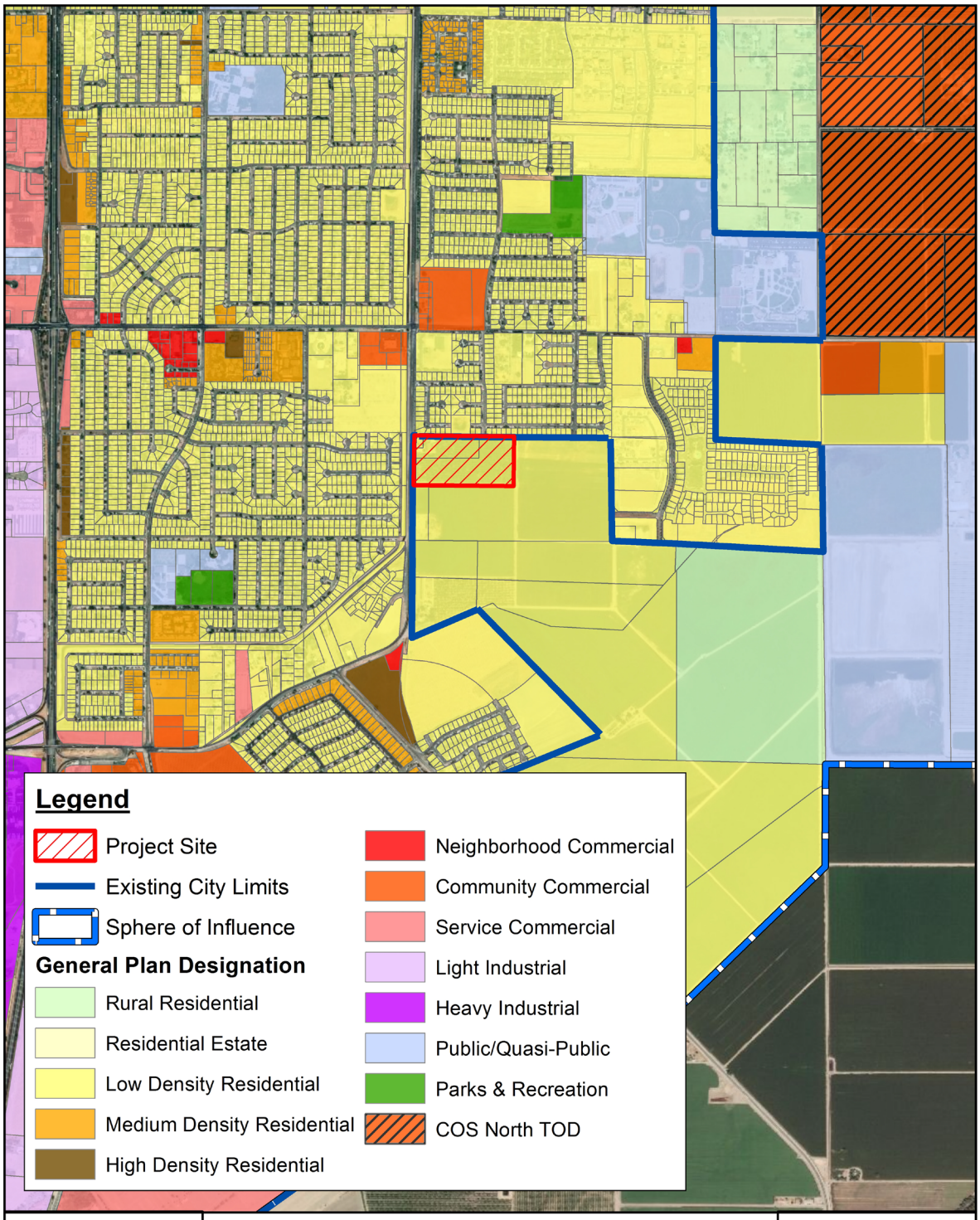
The following goals and policies in the City of Tulare General Plan are applicable to the project site's residential land use designation:

Goal LU-3 To designate, protect, and provide land to ensure sufficient residential development capacity and variety to meet community needs and projected population growth.

- LU-P3.1 Neighborhood Housing Mix. The City shall encourage mixed use neighborhoods to have a variety of housing types and densities to help create an overall healthy, balanced community.
- LU-P3.2 Executive Housing. The City shall encourage the development of "upper end" housing to better accommodate the local market for "executive housing."

- LU-P3.3 Neighborhood Protection. The City shall seek to prevent residential blight and promote healthy neighborhoods through public and private resources/programs (e.g. enforcement of all codes, neighborhood rehabilitation programs, and redevelopment actions).
- LU-P3.4 Jobs-Housing Balance. The City shall consider the effects of city land use proposals and decisions on the Tulare County area and the efforts to maintain a regional jobs-housing balance.
- LU-P3.5 Future Residential Development. The City shall direct future residential development to areas adjacent or in close proximity to existing and future neighborhoods and neighborhood commercial areas to further Tulare as a self-sufficient, full-service city.
- LU-P3.6 High Density Residential Locations. The City shall encourage the development of higher density housing including near commercial services, employment centers, principal arterial routes, and public transportation.
- LU-P3.7 Neighborhood Noise Abatement. The City shall require the abatement of significant noise intrusion into existing and proposed new residential developments from the freeway, major arterials, the railroad, the airport, and other significant noise sources. The burden for mitigation shall be on the new user.
- LU-P3.8 Incompatible Uses. The City shall protect existing residential neighborhoods from the encroachment of incompatible activities and land uses (i.e. traffic, noise, odors, or fumes) and environmental hazards (i.e. flood, soil instability).
- LU-P3.9 Planned Development. The City shall encourage the use of planned development provisions in residential developments to provide flexibility, to meet various socio-economic needs, and to address environmental and site design constraints.
- LU-P3.10 Affordable Housing. The City shall encourage the development of affordable housing to ensure that a variety of housing options are available to all income, age, and cultural groups.

City of Tulare Code of Ordinances Chapter 10.32: The proposed project site is to be pre-zoned by the City of Tulare as R-1-6. The purpose of R-1 districts is to provide living areas within the city where development is limited to low density concentrations of one-family dwellings. The R-1-6 sub-district has a minimum parcel size of 6,000 s.f.



City of Tulare General Plan Land Use
Fernjo Estates

Figure 3-5

Discussion

a) Would the project physically divide an established community?

No Impact: The project proposes the development and annexation of 80 single-family residential units on approximately 18.1 acres within the City of Tulare Sphere of Influence. Tulare County LAFCO is the agency responsible for changes of organization within Tulare County, including annexation of territory into cities or special districts. LAFCOs are required to determine a Sphere of Influence (SOI) for each City, which serves as a plan for the probably physical boundaries and service areas of a local agency. A territory must be within a city's SOI to be annexed into that City. Because the proposed project site is within the City's SOI, and annexation would not lead to the creation of any "county islands," annexation of the site would not physically divide the community. The annexation would result in increased community structure by placing the annexed area inside the city limits, incorporating it into the existing community. There is *no impact.*

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact: The proposed project does not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. There is *no impact.*

XII. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b) Result in the loss of availability of a locally - important mineral resource recovery site delineated on a local general plan, specific plan or other lands use plan?	☐	☐	☐	☑

Environmental Setting

There are no mineral resource zones in Tulare County and there is no mineral extraction occurring on or adjacent to the proposed project site. Historical mines within the County include mineral deposits of tungsten, copper, gold, magnesium and lead, however most of these mines are now closed – leaving only 37 active mining operations. There are no active mining operations within the City of Tulare.

Regulatory Setting

California State Surface Mining and Reclamation Act: The California State Surface Mining and Reclamation Act was adopted in 1975 to regulate surface mining to prevent adverse environmental impacts and to preserve the state's mineral resources. The Act is enforced by the California Department of Conservation's Division of Mine Reclamation.

City of Tulare General Plan: The following mineral resource goals and policies in the Conservation and Open Space Element of the Tulare County General Plan are potentially applicable to the proposed project:

Goal COS-8 To protect the current and future extraction of mineral resources that are important to the City's economy while minimizing impacts of this use on the public and the environment.

- COS-P8.3 Future Resource Development. Provide for the conservation of identified and/or potential mineral deposits within the UDB as areas for future resource development.
- COS-P8.5 Incompatible Development. Proposed incompatible land uses shall not be on lands containing, or adjacent to, identified mineral deposits or along key access roads, unless adequate mitigation measures are adopted or a statement of overriding considerations stating public benefits and overriding reasons for permitting the proposed use are adopted.
- COS-P8.10 Resources Development. The City will promote the responsible development of identified and/or potential mineral deposits.

Discussion

a) Would the project 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?

No Impact: The project site has no known mineral resources that would be of a value to the region and the residents of the state, therefore the proposed project would not result in the loss of impede the mining of regionally or locally important mineral resources. There is *no impact.*

b) Would the project result in the loss of availability of a locally - important mineral resource recovery site delineated on a local general plan, specific plan or other lands use plan?

No Impact: There are no known mineral resources of importance to the region and the project site is not designated under the City's or County's General Plan as an important mineral resource recovery site. For that reason, the proposed project would not result in the loss of availability of known regionally or locally important mineral resources. There is *no impact.*

XIII. NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Generation of a substantial temporary or permeant increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b) Generation of excessive ground-borne vibration or groundborne noise levels?	☐	☐	☐	☑
c) For a project located within the vicinity of a private airstrip or, an airport land use plan or, where such a plan has not been adopted, within two miles of public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

Environmental Setting

Noise is often described as unwanted sound. Sound is the variation in air pressure that the human ear can detect. If the pressure variations occur at least 20 times per second, they can be detected by the human ear. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Ambient noise is the "background" noise of an environment. Ambient noise levels on the proposed project site are primarily due to agricultural activities and traffic. Construction activities usually result in an increase in sound above ambient noise levels.

Regulatory Setting

City of Tulare General Plan: The Noise Element of the City of Tulare General Plan is responsible for establishing noise standards within the City and includes the following goals and policies related to noise that may be applicable to the project.

Goal NOI-1 Protect the citizens of Tulare County from the harmful effects of exposure to excessive noise.

- NOI-P1.5 Construction Noise. Reduce noise associated with construction activities by requiring properly maintained mufflers on construction vehicles, requiring the placement of stationary construction equipment as far as possible from developed areas, and requiring temporary acoustical barriers/shielding to minimize construction noise impacts at adjacent receptors. Special attention should be paid to noise-sensitive receptors (including residential, hospital, school, and religious land uses).

- NOI-P1.6 Limiting Construction Activities. The City shall limit construction activities to the hours of 6 am to 10 pm, Monday through Saturday.
- NOI-P1.18 Construction-related Vibration. Evaluate individual projects that use vibration-intensive construction activities, such as pile drivers, jack hammers, and vibratory rollers, near sensitive receptors for potential vibration impacts. If construction-related vibration is determined to be perceptible at vibration-sensitive uses, additional requirements, such as use of less-vibration-intensive equipment or construction techniques, should be implemented during construction (e.g., drilled piles to eliminate use of vibration-intensive pile driver).

Discussion

a) Would the project result in generation of a substantial temporary or permeant 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?

Less than Significant Impact: Project construction is anticipated to last approximately 18 months and will involve temporary noise sources. The average noise levels generated by construction equipment that will be used in the proposed project are shown below.

Type of Equipment	dBA at 50 feet
Air Compressors	81
Excavators	81
Concrete/Industrial Saws	76
Cranes	83
Forklifts	75
Generators	81
Pavers	89
Rollers	74
Dozers	85
Tractors	84
Loaders	85
Backhoes	80
Graders	85
Scrapers	89
Welders	74

Table 3-10. Noise levels of noise-generating construction equipment. Source: Federal Highway Administration Construction Noise Handbook.

The City of Tulare General Plan and Noise Ordinance does not identify noise thresholds for noise sources related to construction, however the General Plan does require the implementation of noise reduction measures for all construction equipment and limits noise generating activities related to construction to daytime hours Monday through Saturday. The project will comply with these regulations and construction will only occur Monday through Saturday between 6:00 AM and 10:00 PM.

Long term noise levels resulting from the project would include low-density, single-family homes, which are not normally associated with high operational noise levels.

Because noise generated from construction would be temporary, construction activities would comply with all measures established by the county to limit construction related noise impacts, and operational noise would be consistent with adjacent land uses and the project site's land use designated under the general plan. The impact is less than significant.

b) Would the project result in generation of excessive ground-borne vibration or groundborne noise levels?

No Impact: The City of Tulare General Plan states that projects that use vibration-intensive construction activities, such as pile drivers, jack hammers, and vibratory rollers, near sensitive receptors must be evaluated for potential vibration. Because the proposed project would not use this type of equipment, the project would not generate excessive ground-borne vibration or ground-borne noise levels and there is *no impact.*

c) For a project located within the vicinity of a private airstrip or, an airport land use plan or, where such a plan has not been adopted, within two miles of public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact: The project site is not located in an airport land use plan. Mefford Field is the nearest public airport and is located approximately 2.5 miles away from the proposed project site. There is *no impact*.

XIV. POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by new homes and businesses) or directly (for example, through extension of roads or other infrastructure)?	☐	☐	☑	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Environmental Setting

The United States Census Bureau estimated the population in the City of Tulare to be 62,779 in 2016. This is an increase from the 2010 census, which counted the population in the City of Tulare to be 59,469. Factors that influence population growth include job availability, housing availability, and the capacity of existing infrastructure.

Regulatory Setting

The Tulare County population size is controlled by the development code and Land Use Element of the General Plan. These documents regulate the number of dwelling units per acre allowed on various land uses and establish minimum and maximum lot sizes. These factors have a direct impact on the County's population size.

Discussion

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by new homes and businesses) or directly (for example, through extension of roads or other infrastructure)?

No Impact: The project proposes to construct 80 single-family residential units, as well as internal access roads, landscaped grounds, and off-site improvements subject to the City standards. The City of Tulare General Plan states that the City's average household size is 3.35 persons. Based on this average household size, the anticipated population increase as a result of the proposed project is 268 persons.

Although implementation of the proposed project would result in a population increase, this increase is not unplanned. The project site is located within the City of Tulare Urban Development Boundary in an area designated for low density residential use. Because the project is consistent with the planned low density residential use, population growth resulting from the proposed project cannot be considered unplanned. There is *no impact.*

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact: There project would require the removal of one single-family residential structure, however the project proposes to construct 80 single-family residences. The project would not displace substantial numbers of existing housing and there is no impact.

XV. PUBLIC SERVICES

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable serve ratios, response times of other performance objectives for any of the public services:				
a. Fire protection?	☐	☐	☑	☐
b. Police protection?	☐	☐	☑	☐
c. Schools?	☐	☐	☑	☐
d. Parks?	☐	☐	☑	☐
e. Other public facilities?	☐	☐	☑	☐

Environmental Setting

Fire: The project site is served by the Tulare County Fire Protection Department which operates 27 fire stations within unincorporated areas of the County. The Tulare County Fire Protection Department is headquartered in Farmersville, CA. The FCFPD responds to over 12,000 calls annually.

Police: Law enforcement services are provided to the project site via the Tulare Police Department. The City of Tulare will continue to provide police protection services to the proposed project site upon development. Tulare Police Department is located approximately two miles northwest of the proposed project site.

Schools: The proposed project site is located within the Tulare School District. The nearest school, Cypress Elementary School, is located .75 miles south-east of the project site.

Regulatory Setting

School Districts in the City of Tulare are regulated by the California Department of Education, and the Tulare Police Department is regulated by the California Department of Justice. Objectives and Policies relating to Law Enforcement, Fire Protection, Parkland, and School Facilities are included in the Land Use Element and Conservation and Open Space Element of the Tulare's General Plan. The Goals and Policies potentially applicable to the proposed project are as follows:

- COS-P4.1 Parkland/Open Space Standards: The City's goal is to provide 4 acres of developed parkland per 1,000 residents. New residential or mixed use developments containing a residential component may be required to provide parkland, or pay in-lieu fees, in this ratio as directed by the City.

- LU-P11.3 System Expansion: The City shall require new development be responsible for expansion of existing facilities such as water systems, sewer systems, storm drainage systems, parks, and other capital facilities made necessary to serve the new development.
- LU-P11.9: Adequate City Service Capacity: The City shall only approve new development when it can be demonstrated by the applicant that adequate public service capacity in the area is or will be available to handle increases related to the project. School capacity will be discussed in the review of each development, and the City will ensure early coordination with the school districts serving the site. School capacity will be addressed as allowed under State law.
- LU-P11.26 Evaluate Fiscal Impacts: The City shall evaluate the fiscal impacts of new development and encourage a pattern of development that allows the City to provide and maintain a high level of urban services (including, but not limited to, water, sewer, transportation, fire stations, police stations, libraries, administrative, and parks), and community facilities and utility infrastructure, as well as attract targeted businesses and a stable labor force.

Discussion

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable serve ratios, response times of other performance objectives for any of the public services:

a. Fire protection?

Less Than Significant Impact: The Tulare County Fire Department will provide services for the proposed development. The closest fire station is Tulare Fire Station, located at 2082 E. Foster Dr. Tulare Fire Station is located less than 0.5 miles south of the project site. The addition of 80 single-family residential units will increase the demand for fire protection services. According to Tulare's Municipal Service Review (2013), the Tulare Fire Department currently has a deficit of 32 firefighters, 1 fire station, and 4 aerial ladders. However, the shortage as well as the increase in service demand will be compensated by the development impact fee of $246 per dwelling unit, which is consistent with City Resolution Number 03-4988. Therefore, the total development fee would be $19,680. The development impact fee of $246 per dwelling unit is assumed to account for fire protection deficits. Therefore, the impact is *less than significant.*

b. Police protection?

Less than Significant Impact: The Tulare Police Department will provide services to the proposed development. The Tulare Police Department is located approximately two miles northwest of the project site at 260 South M Street. The development would increase the demand for police service with the addition of 80 single-family residential units. According to Tulare's Municipal Service Review (2013), the Tulare Police Department currently has a deficit of 37 sworn officers, 22 non-sworn officers, 28 vehicles, and 8,645 SF in police station space. The shortage and the additional demand will be compensated by the development impact fee of $38 per dwelling unit, which is consistent with City Resolution Number 03-4988. The total development impact fee for police services would be $3,040. Therefore, the impact is *less than significant*.

c. Schools?

Less than Significant Impact: The proposed project is within the Tulare City Elementary School District and Tulare Joint Union High School District. Students from the development would be able to attend neighboring schools, including Cypress Elementary School, Mission Oak High School, and Alpine Vista School. Since the proposed project includes the addition of 80 single-family residential units, the number of students in the school district will increase. The proposed project site is located within the City's approved Urban Development Boundary (UDB) per the City's General Plan, and therefore, growth associated with the Project has been planned and expected. Nonetheless, in accordance with the City's 2035 General Plan, the developer shall coordinate with the City and the school district to ensure that there is adequate capacity to serve additional students. Therefore, the impact is *less than significant.*

d. Parks?

Less than Significant Impact: The addition of 80 new residential units would result in more use at existing parks. Parks within a half-mile to one-mile radius that would service the proposed development include Cypress Park. The City's 2035 General Plan Policy states that new residential development may be required to provide additional parkland or in-lieu fees. Therefore, the developer shall a development impact fee of $3,129 per dwelling unit, which is consistent with Policy COS-P4.1 of the General Plan. The total development impact fee for park services would be $250,320. Since the project would not lower the existing level of services for parks, the impact is *less than significant.*

e. Other public facilities?

Less than Significant Impact: Water and wastewater services for the proposed development would be serviced by existing infrastructure beneath neighboring streets. The additional 80 single-family residential units will increase the demand for water and wastewater facilities. According to Tulare's 2035 General Plan Land Use Element, the City states that new development must be responsible for expanding existing water and sewage systems. Therefore, the developer shall pay the required development impact fees to accommodate the expansion of existing systems. The development impact fees for water facilities, groundwater recharge, sewer facilities, and storm water facilities are $3,030 per dwelling unit, $517 per dwelling unit, $2,860 per dwelling unit, and $1,438 per dwelling unit, respectively. General city facilities fees of $375 per dwelling unit will also compensate for the increased demand for public facilities and services. Therefore, the impact is *less than significant.*

XVI. PARKS AND RECREATION

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☑	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☑

Environmental Setting

There are 20 parks that are owned and operated by The City of Tulare. Cypress Park is the closest recreational area to the project site and is located approximately 0.4 miles west of the project site.

Regulatory Setting

City of Tulare General Plan: The Conservation and Open Space Element of the City of Tulare General Plan contains the following recreational resource goals and policies potentially applicable to the project.

Goal COS-4 To provide parks and recreation facilities and services that adequately meet the existing and future needs of all Tulare residents.

- COS-P4.1 Parkland/Open Space Standards. The City's goal is to provide 4 acres of developed parkland per 1,000 residents. New residential or mixed use developments containing a residential component may be required to provide parkland, or pay in-lieu fees, in this ratio as directed by the City.
- COS-P4.5 Fair Share Responsibilities. The City shall ensure all future residential development is responsible for its fair share of the City's cumulative park and recreational service and facilities maintenance needs.
- COS-P4.6 Land Dedication. The City shall continue its practice of requiring the dedication of community and neighborhood park lands as a condition of approval for large residential development projects (50 or more lots), if applicable.
- COS-P4.7 Fees In Lieu of Parkland Dedication. The City shall allow the payment of fees in lieu of parkland dedication, especially in areas where dedication is not feasible, as provided under the Quimby Act.

Discussion

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less than Significant Impact: Implementation of the proposed project would result in increased use of existing parks and other recreational facilities, however the project would be required to pay fees in-lieu of parkland dedication, which will be used to support the maintenance of existing parks and other recreational facilities. The impact is *less than significant.*

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact: There are no recreational facilities associated with the project. Because the project involves residential development, the project would be required to pay fees in-lieu of parkland dedication, which will be used to support the maintenance of existing parks and other recreational facilities. The project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Therefore, there is no *impact.*

XVII. TRANSPORTATION

Would the 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?**	☐	☐	☐	☑
b) Conflict or be inconsistent with the CEQA guidelines Section 15064.3, Subdivision (B)?	☐	☐	☑	☐
d) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
e) Result in inadequate emergency access?	☐	☐	☑	☐

Environmental Setting

Vehicular Access: Vehicular access to the project is available on Mooney Boulevard and Nelder Grove Street. The City of Tulare is the primary authority for major arterial and local streets. Other transportation facilities include a network of local roads within the proposed project site property. These provide full access to the single-family homes within the development.

The average annual daily traffic (AADT) volume for Mooney Boulevard (south of Bardsley Avenue) is 6,803. Mooney Blvd. is classified as a major arterial and provides high volume connections between freeways and collectors. Nelder Grove Street is classified as a local street and carries lower volumes. Local streets predominantly serve low-density residential areas. According to the City of Tulare General Plan, the AADT for local streets averages less than 1,000 vehicles a day.

Parking: During construction, workers will utilize existing facility parking areas and/or temporary construction staging areas for parking of vehicles and equipment. During project operations, there will be no permanent personnel on-site and no additional parking facilities will be required.

Regulatory Setting

City of Tulare Improvement Standards: The City of Tulare's Improvement Standards are developed and enforced by the City of Tulare's Public Works Department to guide the development and maintenance of City Roads. The cross section drawings contained in the City Improvement Standards dictate the development of roads within the City.

Tulare City General Plan: The Transportation and Circulation Element of the City of Tulare General Plan contains the acceptable Level of Service (LOS) for roadways.

- TR-P2.3 Level of Service Standard**.** The City shall maintain Level of Service "D," as defined in the Highway Capacity Manual (published by the Transportation Research Board of the National

Research Council), as the minimum desirable service level at which freeways, arterial streets, collector streets, and their intersections should operate.

- TR-P7.3 Demand Reduction and Capacity Expansion. Demand Reduction and Capacity Expansion. To improve air quality and reduce congestion, the City shall seek to reduce vehicle-miles-traveled per household by making efficient use of existing and planned transportation facilities. Measures that can be applied include:

    - Promoting efficient arrangement of land uses.
    - Improving public transportation and ridesharing.
    - Facilitating more direct routes for pedestrians and bicyclists and other non-polluting modes.
    - Encouraging large employers to use transportation demand management techniques to reduce peak hour traffic. These techniques could include:

        - Staggered start and end time for employees
        - Carpooling and vanpooling
        - Telecommunications opportunities
        - Business-sponsored transit passes or discounts

Discussion

a) Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact: The project consists of the construction of 80 single-family residential units, as well as on-site circulation-related infrastructure improvements, including new local residential streets and the widening of Mooney Blvd. All improvements, including those related to transit, roadway, bicycle, and pedestrian facilities, are subject to City review and approval to ensure compliance with all plans, ordinances, and policies related to circulation. The proposed project will not conflict with the City's circulation plan and standards. Therefore, there is no impact.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?

Less than Significant Impact: Annual vehicle miles traveled (VMT) resulting from the proposed project was estimated using CalEEMod. The full CallEEMod report is provided in Appendix A. The CalEEMod report found that the project would generate approximately 2,156,948 VMT per year unmitigated. However, the location and design of the proposed project reduced the CalEEMod projected VMT to 717,185.

The design of the proposed project will include features that reduces VMT, such as increasing density. Projects located in areas with higher density generally have lower VMT in comparison to projects in areas of lower density. A jobs and housing estimate was conducted to assess the number of jobs and dwelling units within ½ mile of the project site based on general plan land use patterns. It was estimated that there are 4,066 dwelling units and 1,702 jobs within ½ of the proposed project site.

The proposed project design will also improve the site's walkability and connectivity. The number of 3- and 4-way intersections within ½ mile of the project site were counted. It was found that the area's intersection density is 112.6 intersections per square mile. In addition, the proposed project is located 1 mile from an industrial job center and approximately 2 miles from the City's Central Business District. The San Joaquin Valley Air Pollution Control District considers projects within 12 miles of a downtown or job center to improve destination accessibility. Projects with improved destination accessibility generally reduce dependency on vehicular transportation. A transit stop is also located approximately ¼ mile from the proposed project site. The availability of nearby public transit decreases dependence on vehicular transportation and project-related VMT.

Furthermore, the proposed project will feature on-site infrastructure improvements, including new local residential streets and the widening of Mooney Blvd., to strengthen pedestrian connectivity in the project area and reduce vehicular dependency. In addition to an improved pedestrian network, the project will provide traffic calming measures, such as landscape strips, to calm traffic within the project area and encourage multi-modal travel.

The project features mentioned above are recognized by the San Joaquin Valley Air Pollution Control District as measures to address transportation-related environmental impacts. Because the project will incorporate these features into its design, it is anticipated that VMT will be reduced by 66%. Therefore, the project would not conflict with CEQA Guidelines Section 15064.3, Subsection (b). The impact is *less than significant.*

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact: No public roadway design features or incompatible uses are included in the proposed project. All equipment will remain on-site and outside of public R-O-W. There is *no impact.*

d) Would the project result in inadequate emergency access?

Less Than Significant Impact: This project would not result in inadequate emergency access. Emergency access to the site would be via Mooney Blvd. A network of local roads within the proposed project property provides full access onto and off of the project site. Any impacts related to emergency access would be *less than significant.*

XVIII. TRIBAL CULTURAL RESOURCES

Would the project: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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	☐	☑	☐	☐
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☑	☐	☐

Environmental Setting

Of the main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory. The Yokuts numbered about 25,000, and were clustered into about fifty independent local sub-tribes. Historians believe approximately 22 villages stretched from Stockton northerly to the Tehachapi Mountains southerly, although most were concentrated around Tulare Lake, Kaweah River and its tributaries. As a result, numerous of cultural resource sites have been identified in Tulare County.

Cultural Resources Record Search and Native American Consultation: A records search was conducted on behalf of the Applicant at the Southern San Joaquin Valley Archaeological Information Center (AIC), to determine if historical or archaeological sites had previously been recorded within the study area, if the project area had been systematically surveyed by archaeologists prior to the initial study, and/or whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive.

The records search stated that there have been no previous cultural resource studies conducted within the project area, however two studies were conducted within a one-half mile radius of the project. According to the records search, there are no recorded cultural resources within the project area or within a one-half mile radius of the project site. The full findings of the records search can be found in Appendix C.

Definitions

- **Historical Resources**: Historical resources are defined by CEQA as resources that are listed in or eligible for the California Register of Historical Resources, resources that are listed in a local historical resource register, or resources that are otherwise determined to be historical under California Public Resources Code Section 21084.1 or California Code of Regulations Section 15064.5. Under these definitions Historical Resources can include archaeological resources, Tribal cultural resources, and Paleontological Resources.

- **Archaeological Resources:** As stated above, archaeological resources may be considered historical resources. If they do not meet the qualifications under the California Public Resources Code 21084.1 or California Code of Regulations Section 15064.5, they are instead determined to be "unique" as defined by the CEQA Statute Section 21083.2. A unique archaeological resource is an artifact, object, or site that: (1) contains information (for which there is a demonstrable public interest) needed to answer important scientific research questions; (2) has a special and particular quality, such as being the oldest of its type or the best available example of its type; or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

- **Tribal Cultural Resource (TCR):** Tribal Cultural Resources can include site features, places, cultural landscapes, sacred places, or objects, which are of cultural value to a Tribe. It is either listed on or eligible for the CA Historic Register or a local historic register, or determined by the lead agency to be treated as TCR.

- **Paleontological Resources:** For the purposes of this section, "paleontological resources" refers to the fossilized plant and animal remains of prehistoric species. Paleontological Resources are a limited scientific and educational resource and are valued for the information they yield about the history of the earth and its ecology. Fossilized remains, such as bones, teeth, shells, and leaves, are found in geologic deposits (i.e., rock formations). Paleontological resources generally include the geologic formations and localities in which the fossils are collected.

Regulatory Setting

National Historic Preservation Act: The National Historic Preservation Act was adopted in 1966 to preserve historic and archeological sites in the United States. The Act created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation offices.

California Historic Register: The California Historic Register was developed as a program to identify, evaluate, register, and protect Historical Resources in California. California Historical Landmarks are sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, experimental, or other value. In order for a resource to be designated as a historical landmark, it must meet the following criteria:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).
- Associated with an individual or group having a profound influence on the history of California.

- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer or master builder.

City of Tulare General Plan: The City of Tulare General Plan includes the following goals and policies pertaining to tribal cultural resources:

Goal COS-5 To manage and protect sites of cultural and archaeological importance for the benefit of present and future generations.

- COS-P5.1 Archaeological Resources. The City shall support efforts to protect and/or recover archaeological resources.
- COS-P5.6 Protection of Resources with Potential State or Federal Designations. The City shall encourage the protection of cultural and archaeological sites with potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources. Such sites may be of statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values.
- COS-P5.9 Discovery of Archaeological Resources. In the event that archaeological/ paleontological resources are discovered during site excavation, grading, or construction, the City shall require that work on the site be suspended within 100 feet of the resource until the significance of the features can be determined by a qualified archaeologist/ paleontologist. If significant resources are determined to exist, an archaeologist shall make recommendations for protection or recovery of the resource. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City.
- COS-P5.10 Discovery of Human Remains. Consistent with Section 7050.5 of the California Health and Safety Code and CEQA Guidelines (Section 15064.5), if human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). If any human remains are discovered or recognized in any location on the project site, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

    - The Tulare County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and
    - If the remains are of Native American origin,
        - The descendants of the deceased Native Americans have made a timely recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code Section 5097.98.
        - The Native American Heritage Commission was unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified by the commission, or
        - The landowner or his or her authorized representative rejects any timely recommendations of the descendent, and mediation conducted by the Native

American Heritage Commission has failed to provide measures acceptable to the landowner.

- COS-P5.11 Impact Mitigation. If preservation of cultural/historical resources is not feasible, the City shall make every effort to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records.
- COS-P5.12 Mitigation Monitoring for Historical Resources. The City shall develop standards for monitoring mitigation measures established for the protection of historical resources prior to development.
- COS-P5.13 Alteration of Sites with Identified Cultural Resources. When planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. The City shall permit development in these areas only after a site-specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and mitigation measures proposed for any impacts the development may have on the resource.
- COS-P5.14 Education Program Support. The City shall support local, state, and national education programs on cultural and archaeological resources.
- COS-P5.15 Solicit Input from Local Native Americans. The City shall solicit input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.
- COS-P5.16 Confidentiality of Archaeological Sites. The City shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect resources that are determined to exist. An archaeologist/paleontologist shall make recommendations for protection or recovery of the resource. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City.
- COS-P5.17 Cooperation of Property Owners. The City shall encourage the cooperation of property owners to treat cultural resources as assets rather than liabilities, and encourage public support for the preservation of these resources.
- COS-P5.18 Archaeological Resource Surveys. Prior to project approval, the City shall require project applicant to have a qualified archaeologist conduct the following activities: (1) conduct a record search at the Regional Archaeological Information Center located at California State University Bakersfield and other appropriate historical repositories, (2) conduct field surveys where appropriate, and (3) prepare technical reports, where appropriate, meeting California Office of Historic Preservation Standards (Archaeological Resource Management Reports).

Discussion

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

a) 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

Less Than Significant Impact with Mitigation: The project would not cause a substantial adverse change in the significance of a tribal cultural resource, nor is it listed or eligible for

listing in the California Register of Historical Resources, or in a local register of historical resources. Based on the results of the records search, no previously recorded cultural resources are located within the project site. Although no historical resources were identified, the presence of remains or unanticipated cultural resources under the ground surface is possible. Implementation of Mitigation Measures TCR-1, TCR -2, TCR -3, and TCR -4 will ensure that impacts to this checklist item will be *less than significant with mitigation incorporation*.

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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact with Mitigation: The lead agency has not determined there to be any known tribal cultural resources located within the project area. Additionally, there are not believed to be any paleontological resources or human remains buried within the project area's vicinity. However, if resources were found to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American Tribe. Implementation of Mitigation Measures TCR -1, TCR -2, TCR -3, and TCR -4 will ensure that any impacts resulting from project implementation remain *less than significant with mitigation incorporation.*

Mitigation Measures for Impacts to Cultural Resources:

Mitigation Measure TCR-1: Project construction workers will be required to participate in a Cultural Sensitivity Training program. This program is intended to increase awareness of cultural resources that may be found on the site and inform construction workers of their responsibility to identify and protect cultural resources found within the project area.

Mitigation Measure TCR-2: If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (NPS 1983) shall be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation and Native American consultation may be warranted to mitigate any adverse effects.

Mitigation Measure TCR-3: The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Mitigation Measure TCR-4: Upon coordination with the Tulare County Resource Management Agency, any archaeological artifacts recovered shall be donated to an appropriate Tribal custodian or a qualified scientific institution where they would be afforded long-term preservation. Documentation for the work shall be provided in accordance with applicable cultural resource laws and guidelines.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or **stormwater drainage, electric power, natural gas, or telecommunications facilities,** the construction or relation of which could cause significant environmental effects?	☐	☐	☑	☐
b) Have sufficient water supplies available to serve the project **and reasonably foreseeable future development during normal, dry and multiple dry years?**	☐	☐	☑	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☑	☐
d) **Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**	☐	☐	☑	☐
e) Comply with federal, state, and local **management and reduction** statutes and regulations related to solid waste?	☐	☐	☐	☑

Environmental Setting

According to the Tulare Municipal Service Review (2013), the City would be able to provide the necessary infrastructure services and utility systems required for new development. Utilities and service systems include wastewater treatment, storm water drainage facilities, water supply, landfill capacity, and solid waste disposal.

Wastewater: Wastewater will be collected and treated at the City's wastewater treatment facility, which is located at the intersection Paige Ave. and West St.

Solid Waste: Solid waste disposal will be provided by the Tulare County Solid Waste Department, which operates two landfills and six transfer stations within the county. Combined, these landfills receive approximately 300,000 tons of solid waste per day.

Water: Water for the proposed development will be provided by the City of Tulare. The City's primary water source is groundwater. Existing water entitlements currently provide water to the proposed project site. Implementation of the proposed project will not require additional water entitlements.

Storm Drainage: Tulare is currently in an agreement with Tulare Irrigation District (TID). The City pumps storm water into canals owned by TID. Storm water is also disposed and detained in storm drainage detention and retention basins throughout the City. Tulare actively improves its storm drainage system to accommodate new urban development.

Regulatory Setting

CalRecycle: California Code of Regulations, Title 14, Natural Resources – Division 7 contains all current CalRecycle regulations regarding nonhazardous waste management in the state. These regulations include standards for the handling of solid waste, standards for the handling of compostable materials, design standards for disposal facilities, and disposal standards for specific types of waste.

Central Valley RWQCB: The Central Valley RWQCB requires a Stormwater Pollution Prevention Plan (SWPPP) for projects disturbing more than one acre of total land area. Because the project is greater than one acre, a SWPPP to manage stormwater generated during project construction will be required.

The Central Valley RWQCB regulates Wastewater Discharges to Land by establishing thresholds for discharged pollutants and implementing monitoring programs to evaluate program compliance. This program regulates approximately 1500 dischargers in the region.

The Central Valley RWQCB is also responsible for implementing the federal program, the National Pollutant Discharge Elimination System (NPDES). The NPDES Program is the federal permitting program that regulates discharges of pollutants to surface waters of the U.S. Under this program, a NPDES permit is required to discharge pollutants into Water's of the U.S. There are 350 permitted facilities within the Central Valley Region.

Discussion

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relation of which could cause significant environmental effects?

Less than Significant Impact: The proposed project will require the extension of existing utility services into the project area. This is not anticipated to cause a significant environmental effect because extension would occur within the right-of-way prior to street construction to minimize environmental impacts.

The City will analyze potential impacts on the existing water, wastewater and stormwater systems prior to project construction to ensure that these systems have adequate capacity to support the proposed project. Southern California Edison and Southern California Gas will provide electric and natural gas services to the site, respectively. These suppliers have an excess supply of electricity and natural gas and will not need to construct new electric generation or natural gas extraction facilities as a result of the proposed project.

It is not anticipated that the proposed project would result in the relocation or construction of new or expanded wastewater treatment facilities, stormwater drainage facilities, power plants, natural gas extraction facilities or telecommunication facilities. In the event that any of these facilities

become required, they would be subject to separate environmental review and approval. The impact is *less than significant.*

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant Impact: The water demand for the proposed 80 single-family residential unit is estimated to be approximately 21,600 gallons of water daily. Water services will be provided by the City of Tulare upon annexation. The City's water supply source is comprised of 30 wells that extract water from an underground aquifer. According to City's Urban Water Management Plan (2015), the projected water supply for Tulare in year 2020 is 11,105.8 million gallons, which is comprised of both groundwater and recycled water. The City engages is a variety of strategies to ensure that adequate water resources area available throughout normal, dry, and multiple dry years. These strategies include a water conservation staging ordinance, which establishes five progressively more restrictive stages of water conservation to be implemented during dry and consecutive-dry years. The city also utilizes conjunctive use techniques, which involve diverting excess surface water for groundwater recharge during wet years so that it will be available during dry years. In addition, Tulare General Plan Policy LU-P11.5 requires developers to assure that there is sufficient available water supply to meet projected demand for all new development. The proposed project is planned to be consistent with the 2015 UWMP, which demonstrates adequate water supply to serve development in the City. Additionally, Tulare General Plan Policy LU-P11.3 requires all new development to be responsible for expansion of existing facilities, such as water systems, made necessary to serve the new development.

The use of these strategies greatly improves the City's control over water supply and demand, which provides water supply flexibility and significantly reduces the City's vulnerability in the event of dry and multiple dry years. The impact is *less than significant.*

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact: As previously discussed above, wastewater generated by the project would be collected and treated at the City's domestic wastewater treatment train (WWTT). Although the proposed project will increase in wastewater generation due to the addition of 80 single-family residential units, the wastewater produced would not exceed the City's WWTF capacity of 6.0 MGD. The impact is *less than significant*.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact: Waste Management will be provided by the Tulare County Solid Waste Department. Solid waste is anticipated as a result of project implementation and the landfills have sufficient permitted capacity to accommodate the project's solid waste disposal needs. The impact is *less than significant.*

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact: This proposed project conforms to all applicable management and reduction statutes and regulations related to solid waste disposal. The development will comply with the adopted policies related to solid waste, and will comply with all applicable federal, state, and local statutes and regulations pertaining to disposal of solid waste, including recycling. Therefore, the proposed project would have *no impact* on solid waste regulations.

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☑
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☑	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☑	☐

Regulatory Setting

Definitions:
Fire hazard severity zones: geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code, Sections 51175 through 51189.

Tulare Unit Strategic Fire Plan Key Goals and Objectives:

- *Support the implementation and maintenance of defensible space inspections around structures*
- *Analyze trends in fire cause and focus prevention and education efforts to modify behaviors and effect change to reduce ignitions within Tulare County*
- *Identify and evaluate wildland fire hazards and recognize assets at risk, collecting and analyzing data to determine fuel reduction project, and other projects.*
- *Assist landowners and local government in the evaluation of the need to retain and utilize features (e.g. roads, fire lines, water sources) developed during fire suppression efforts, taking into consideration those identified in previous planning efforts*

Tulare County Disaster Preparedness Guide (2011): The Tulare County Preparedness Guide provides guidelines regarding disaster preparedness and evacuation planning for Tulare County residents.

Discussion

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact: The project would not substantially impair an adopted emergency response plan or emergency evacuation plan including the Tulare Unit Strategic Fire Plan and the Tulare County Disaster Preparedness Guide. There is *no impact.*

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact: The project is located on a flat area of land with little risk of fire. The Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan identifies the risk of fire within the City of Tulare as having unlikely frequency, limited extent, limited magnitude, and low significance. The project would not exacerbate wildfire risks and expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. There is *no impact.*

c) Would the project 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?

Less than significant Impact: The construction of the project involves widening Mooney Blvd and adding new local residential streets, new and relocated utilities, and a temporary retention basin to treat storm water flows. Utilities such as emergency water sources and power lines would be included as part of the proposed development, however all improvements would be subject to City standards and fire chief approval. The proposed project would not exacerbate fire risk and the impact would be *less than significant.*

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire instability, or drainage changes?

Less than significant Impact: The project site is located on land with a flat topography. Therefore, the project would not be susceptible to downslope or downstream flooding or landslides as a result of post-fire instability or drainage changes. Because the construction of the project would result in an increase of impervious surfaces, an increase in surface runoff may occur. However, the project will include a temporary storm basin which would reduce the risk of possible flooding or landslides. Therefore, the impact is *less than significant.*

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
b) Does the project have the potential substantially to 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 cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☑	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

Discussion

a) Does the project have the potential to 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, 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?

Less Than Significant Impact with Mitigation: This initial study/mitigated negative declaration found the project could have significant impacts on biological, historical, and Tribal cultural resources. However, implementation of the identified mitigation measures for each respective section would ensure that impacts are *less than significant with mitigation incorporation.*

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact: CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the

project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc). Impacts would be *less than significant*.

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

Less Than Significant Impact: The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the project design to reduce all potentially significant impacts to less than significant, which results in a *less than significant* impact to this checklist item.

3.6 MITIGATION MONITORING AND REPORTING PROGRAM

As required by Public Resources Code Section 21081.6, subd. (a)(1), a Mitigation Monitoring and Reporting Program (MMRP) has been prepared for the project in order to monitor the implementation of the mitigation measures that have been adopted for the project. This Mitigation Monitoring and Reporting Program (MMRP) has been created based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Fernjo Estates Project proposed by Joey & Tawney Fernandes in the City of Tulare.

The first column of the table identifies the mitigation measure. The second column names the party responsible for carrying out the required action. The third column, "Timing of Mitigation Measure" identifies the time the mitigation measure should be initiated. The fourth column, "Responsible Party for Monitoring," names the party ensuring that the mitigation measure is implemented. The last column will be used by the City of Tulare to ensure that the individual mitigation measures have been monitored.

Plan checking and verification of mitigation compliance shall be the responsibility of the City of Tulare.

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure AG-1: Per COS-P3.12 of the City of Tulare General Plan, agricultural land equivalent to that of the project site will be preserved at a 1:1 ratio for every acre of land converted. Prior to project development, agricultural mitigation fees will be paid to a local land trust agency. These fees will be sufficient to cover the cost of the agricultural easement and transactional fees, as well as costs related to the administering, monitoring, and enforcing of the easement.	Project Sponsor	Prior to the start of construction.	City of Tulare	
Mitigation Measure BIO-1a: In order to avoid impacts to nesting raptors and migratory birds, the project will be constructed, if feasible, outside the nesting season, or between September 1st and January 31st.	Project Sponsor	Ongoing during construction.	City of Tulare	
Mitigation Measure BIO-1b: If project activities must occur during the nesting season (February 1-August 31), a qualified biologist will conduct preconstruction surveys for active raptor and migratory bird nests within 14 days prior to the start of these activities. The survey will include the proposed work area(s) and surrounding lands within 500 feet, where accessible, for all nesting raptors and migratory birds save Swainson's hawk; the Swainson's hawk survey will extend to 0.5 miles outside of work area boundaries. If no nesting pairs are found within the survey area, no further mitigation is required.	Project Sponsor	Within 14 days prior to the start of construction.	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure BIO-1c: Should any active nests be discovered near proposed work areas, the active nests shall be avoided with a construction free buffer of 500 feet. Construction free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until the biologist has determined that the young have fledged.	Project Sponsor	Prior to the start of construction and ongoing during construction.	City of Tulare	
Mitigation Measure BIO-2a: (Take Avoidance Survey). A take avoidance survey for burrowing owls will be conducted by a qualified biologist within 14 days prior to the start of construction. This take avoidance survey will be conducted according to methods described in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). The survey area will include all suitable habitat on and within 200 meters of project impact areas, where accessible.	Project Sponsor	Within 14 days prior to the start of construction.	City of Tulare	
Mitigation Measure BIO-2b: (Avoidance of Active Nests and Roosts). If project activities are undertaken during the breeding season (February 1-August 31) and active nest burrows are identified within or near project impact areas, a 200-meter disturbance-free buffer will be established around these burrows. During the non-breeding season (September 1-January 31), resident owls occupying burrows in or near project impact areas will be avoided through the establishment of a 50-meter disturbance-free buffer or passively relocated to alternative habitat as described below. Smaller buffer areas during the non-breeding season may be implemented with the presence of a qualified biological monitor during all activities occurring within 50 meters of occupied burrows. Buffers will remain in place for the duration of project activities occurring within the vicinity of burrowing owl activity.	Project Sponsor	Ongoing during construction.	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure BIO-2c: (Passive Relocation of Resident Owls). During the nonbreeding season (September 1-January 31), resident owls occupying burrows in project impact areas may be passively relocated to alternative habitat. This activity would be conducted in accordance with a relocation plan prepared by a qualified biologist. Passive relocation may include one or more of the following elements: 1) establishing a minimum 50-foot buffer around all active burrowing owl burrows, 2) removing all suitable burrows outside the 50-foot buffer and up to 50 meters outside of the impact areas as necessary, 3) installing one-way doors on all potential owl burrows within the 50-foot buffer, 4) leaving one-way doors in place for 48 hours to ensure owls have vacated the burrows, and 5) removing the doors and excavating the remaining burrows within the 50-foot buffer.	Project Sponsor	Ongoing during construction	City of Tulare	
Mitigation Measure BIO-3a: Preconstruction surveys for the San Joaquin kit fox shall be conducted on and within 200 feet of the project site, no less than 14 days and no more than 30 days prior to the start of ground disturbance activities on the site. The primary objective is to identify kit fox habitat features (e.g., potential dens and refugia) on and adjacent to the site and evaluate their use by kit foxes. Preconstruction surveys will be repeated following any lapses in construction of 30 days or more.	Project Sponsor	Between 14 and 30 days prior to the start of construction and ongoing during construction.	City of Tulare	
Mitigation Measure BIO-3b: Should active kit fox dens be detected during preconstruction surveys, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified. A disturbance-free buffer will be established around the burrows in consultation with the USFWS and CDFW, to be maintained until an agency-approved biologist has determined that the burrows have been abandoned.	Project Sponsor	Prior to the start of construction and ongoing during construction.	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure BIO-3c: Construction activities shall be carried out in a manner that minimizes disturbance to kit foxes in accordance with the USFWS Standardized Recommendations. The applicant shall implement all minimization measures presented in the Construction and On-going Operational Requirements section of the Standardized Recommendations, including, but not limited to: restriction of project related vehicle traffic to established roads, construction areas, and other designated areas; inspection and covering of structures (e.g. pipes), as well as installation of escape structures, to prevent the inadvertent entrapment of kit foxes; restriction of rodenticide and herbicide use; and proper disposal of food items and trash.	Project Sponsor	Ongoing during construction.	City of Tulare	
Mitigation Measure BIO-3d: Prior to the start of construction, the applicant will retain a qualified biologist to conduct a tailgate meeting to train all construction staff that will be involved with the project on the San Joaquin kit fox. This training will include a description of the kit fox and its habitat needs; a report of the occurrence of kit fox in the project vicinity; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of the measures being taken to reduce impacts to the species during project construction and implementation. The training will include a handout with all of the training information included in it. The applicant will use this handout to train any construction personnel that were not in attendance at the first meeting, prior to those personnel starting work on the site.	Project Sponsor	Within 30 days prior to the start of construction	City of Tulare	
Mitigation Measure BIO-3e: The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified in writing within three working days in case of the accidental death or injury of a San Joaquin kit fox during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.	Project Sponsor	Ongoing during construction.	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure CUL-1: If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (NPS 1983) should be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation and Native American consultation may be warranted to mitigate any adverse effects.	Project Sponsor	Ongoing during construction.	City of Tulare	
Mitigation Measure CUL-2: The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.	Project Sponsor	Ongoing during construction.	City of Tulare	
Mitigation Measure HYD-1: Prior to the issuance of any construction/grading permit and/or the commencement of any clearing, grading, or excavation, the Applicant shall submit a Notice of Intent (NOI) for discharge from the Project site to the California SWRCB Storm Water Permit Unit. •Prior to issuance of grading permits for Phase 1 the Applicant shall submit a copy of the NOI to the City. •The City shall review noticing documentation prior to approval of the grading permit. City monitoring staff will inspect the site during construction for compliance.	Project Sponsor	Prior to the start of construction.	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure HYD-2: The Applicant shall require the building contractor to prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to the City 45 days prior to the start of work for approval. The contractor is responsible for understanding the State General Permit and instituting the SWPPP during construction. A SWPPP for site construction shall be developed prior to the initiation of grading and implemented for all construction activity on the Project site in excess of one (1) acre, or where the area of disturbance is less than one acre but is part of the Project's plan of development that in total disturbs one or more acres. The SWPPP shall identify potential pollutant sources that may affect the quality of discharges to storm water, and shall include specific BMPs to control the discharge of material from the site. The following BMP methods shall include, but would not be limited to: •Dust control measures will be implemented to ensure success of all onsite activities to control fugitive dust; •A routine monitoring plan will be implemented to ensure success of all onsite erosion and sedimentation control measures; •Provisional detention basins, straw bales, erosion control blankets, mulching, silt fencing, sand bagging, and soil stabilizers will be used; •Soil stockpiles and graded slopes will be covered after two weeks of inactivity and 24 hours prior to and during extreme weather conditions; and, •BMPs will be strictly followed to prevent spills and discharges of pollutants onsite, such as material storage, trash disposal, construction entrances, etc.	Project Sponsor	45 days prior to the start of construction	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure HYD-3: A Development Maintenance Manual for the Project shall include comprehensive procedures for maintenance and operations of any stormwater facilities to ensure long-term operation and maintenance of post-construction stormwater controls. The maintenance manual shall require that stormwater BMP devices be inspected, cleaned and maintained in accordance with the manufacturer's maintenance conditions. The manual shall require that devices be cleaned prior to the onset of the rainy season (i.e., mid-October) and immediately after the end of the rainy season (i.e., mid-May). The manual shall also require that all devices be checked after major storm events. The Development Maintenance Manual shall include the following: •Runoff shall be directed away from trash and loading dock areas; •Bins shall be lined or otherwise constructed to reduce leaking of liquid wastes; •Trash and loading dock areas shall be screened or walled to minimize offsite transport of trash; and, •Impervious berms, trench catch basin, drop inlets, or overflow containment structures nearby docks and trash areas shall be installed to minimize the potential for leaks, spills or wash down water to enter the drainage system.	Project Sponsor	Prior to the start of construction	City of Tulare	
Mitigation Measure TCR-1: Project construction workers will be required to participate in a Cultural Sensitivity Training program. This program is intended to increase awareness of cultural resources that may be found on the site and inform construction workers of their responsibility to identify and protect cultural resources found within the project area.	Project Sponsor	Prior to the start of construction.	City of Tulare	
Mitigation Measure TCR-2: If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (NPS 1983) shall be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation and Native American consultation may be warranted to mitigate any adverse effects.	Project Sponsor	Ongoing during construction.	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure TCR-3: The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.	Project Sponsor	Ongoing during construction.	City of Tulare	
Mitigation Measure TCR-4: Upon coordination with the Tulare County Resource Management Agency, any archaeological artifacts recovered shall be donated to an appropriate Tribal custodian or a qualified scientific institution where they would be afforded long-term preservation. Documentation for the work shall be provided in accordance with applicable cultural resource laws and guidelines.	Project Sponsor	Ongoing during construction.	City of Tulare	

3.7 Supporting Information and Sources

1. AB 3098 List
2. City of Tulare General Plan
3. City of Tulare General Plan EIR
4. City of Tulare Climate Action Plan
5. City of Tulare Draft 2015 Urban Water Management Plan
6. City of Tulare Zoning Ordinance
7. Engineering Standards, City of Tulare
8. SJVAPCD Regulations and Guidelines
9. Flood Insurance Rate Maps
10. California Air Resources Board's (CARB's) Air Quality and Land Use Handbook
11. 2008 (California Environmental Quality Act CEQA Guidelines
12. California Building Code
13. California Stormwater Pollution Prevention Program (SWPPP)
14. "Construction Noise Handbook." U.S. Department of Transportation/Federal Highway Administration.
15. Government Code Section 65962.5
16. California Environmental Protection Agency (CEPA)
17. Cypher, Brian, Et Al. Conservation of Endangered Tipton Kangaroo Rats (Dipodomys Nitratoides Nitratoides): Status Surveys, Habitat Suitability, And Conservation Strategies. California Department Of Fish And Wildlife, 2016.
18. California Energy Efficiency Strategic Plan: New Residential Zero Net Energy Action Plan 2015-2020, June 2015
19. San Joaquin Valley Air Pollution Control District Mitigation Measures (http://www.valleyair.org/transportation/Mitigation-Measures.pdf)

Section 4

List of Report Preparers

City of Tulare
411 East Kern Avenue
Tulare, CA 93274

SECTION 4
List of Preparers

Project Title: Fernjo Estates

List of Preparers

4-Creeks Inc.

- David Duda, AICP, GISP
- Aaron Carpenter, Associate Planner
- Molly McDonnel, Associate Planner
- Saba Asghary, Assistant Planner
- Emily Huang, Planning Intern

Persons and Agencies Consulted

The following individuals and agencies contributed to this Initial Study/Mitigated Negative Declaration:

4-Creeks Inc.

- David De Groot, PE.
- Matt Razor, PE.

City of Tulare

- Josh McDonnell, Community & Economic Development Director

California Historic Resources Information System

- Celeste Thomson, Coordinator

Appendix A

CalEEMod Report

Fernjo Estates

Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	81.00	Dwelling Unit	18.10	162,000.00	232

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	51
Climate Zone	7			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2,000 sf houses

Construction Phase -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	BuildingSpaceSquareFeet	145,800.00	162,000.00
tblLandUse	LandUseSquareFeet	145,800.00	162,000.00
tblLandUse	LotAcreage	26.30	18.10
tblProjectCharacteristics	OperationalYear	2018	2020
tblWoodstoves	NumberCatalytic	18.10	0.00
tblWoodstoves	NumberNoncatalytic	18.10	0.00

2.0 Emissions Summary

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					
2018	0.1482	1.5937	0.9417	1.6500e-003	0.2256	0.0764	0.3020	0.1050	0.0706	0.1755	0.0000	149.9054	149.9054	0.0435	0.0000	150.9931
2019	0.3338	2.9224	2.4115	4.1400e-003	0.0379	0.1698	0.2077	0.0103	0.1597	0.1699	0.0000	365.2660	365.2660	0.0773	0.0000	367.1986
2020	1.5753	0.4944	0.4684	8.0000e-004	6.4700e-003	0.0272	0.0337	1.7400e-003	0.0255	0.0272	0.0000	69.4913	69.4913	0.0163	0.0000	69.8996
Maximum	**1.5753**	**2.9224**	**2.4115**	**4.1400e-003**	**0.2256**	**0.1698**	**0.3020**	**0.1050**	**0.1597**	**0.1755**	**0.0000**	**365.2660**	**365.2660**	**0.0773**	**0.0000**	**367.1986**

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					
2018	0.1482	1.5937	0.9417	1.6500e-003	0.2256	0.0764	0.3020	0.1050	0.0706	0.1755	0.0000	149.9052	149.9052	0.0435	0.0000	150.9929
2019	0.3338	2.9224	2.4115	4.1400e-003	0.0379	0.1698	0.2077	0.0103	0.1597	0.1699	0.0000	365.2656	365.2656	0.0773	0.0000	367.1982
2020	1.5753	0.4944	0.4684	8.0000e-004	6.4700e-003	0.0272	0.0337	1.7400e-003	0.0255	0.0272	0.0000	69.4912	69.4912	0.0163	0.0000	69.8995
Maximum	**1.5753**	**2.9224**	**2.4115**	**4.1400e-003**	**0.2256**	**0.1698**	**0.3020**	**0.1050**	**0.1597**	**0.1755**	**0.0000**	**365.2656**	**365.2656**	**0.0773**	**0.0000**	**367.1982**

Fernjo Estates - Tulare County, Annual

	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	N20	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	**10-1-2018**	**12-31-2018**	1.7281	1.7281
2	**1-1-2019**	**3-31-2019**	0.8026	0.8026
3	**4-1-2019**	**6-30-2019**	0.8107	0.8107
4	**7-1-2019**	**9-30-2019**	0.8196	0.8196
5	**10-1-2019**	**12-31-2019**	0.8205	0.8205
6	**1-1-2020**	**3-31-2020**	1.5102	1.5102
7	**4-1-2020**	**6-30-2020**	0.5501	0.5501
		Highest	1.7281	1.7281

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	0.8067	0.0373	0.6163	2.3000e-004		5.7700e-003	5.7700e-003		5.7700e-003	5.7700e-003	0.0000	36.0722	36.0722	1.6300e-003	6.4000e-004	36.3047
Energy	0.0137	0.1169	0.0497	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003	0.0000	373.4909	373.4909	0.0124	4.5200e-003	375.1471
Mobile	0.3089	2.6059	3.4076	0.0124	0.8159	0.0141	0.8300	0.2193	0.0133	0.2327	0.0000	1,146.5957	1,146.5957	0.0530	0.0000	1,147.9210
Waste						0.0000	0.0000		0.0000	0.0000	16.9538	0.0000	16.9538	1.0019	0.0000	42.0023
Water						0.0000	0.0000		0.0000	0.0000	1.6743	12.8090	14.4833	0.1725	4.1700e-003	20.0383
Total	**1.1292**	**2.7600**	**4.0737**	**0.0134**	**0.8159**	**0.0293**	**0.8453**	**0.2193**	**0.0286**	**0.2479**	**18.6281**	**1,568.9678**	**1,587.5959**	**1.2415**	**9.3300e-003**	**1,621.4134**

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	0.8031	6.9800e-003	0.6034	3.0000e-005		3.3200e-003	3.3200e-003		3.3200e-003	3.3200e-003	0.0000	0.9824	0.9824	9.6000e-004	0.0000	1.0064
Energy	0.0125	0.1069	0.0455	6.8000e-004		8.6500e-003	8.6500e-003		8.6500e-003	8.6500e-003	0.0000	359.5964	359.5964	0.0121	4.2800e-003	361.1757
Mobile	0.2321	1.7026	1.6932	5.1400e-003	0.2713	5.6700e-003	0.2770	0.0729	5.3600e-003	0.0783	0.0000	476.8643	476.8643	0.0342	0.0000	477.7190
Waste						0.0000	0.0000		0.0000	0.0000	16.9538	0.0000	16.9538	1.0019	0.0000	42.0023
Water						0.0000	0.0000		0.0000	0.0000	1.6743	12.8090	14.4833	0.1725	4.1700e-003	20.0383
Total	**1.0477**	**1.8165**	**2.3421**	**5.8500e-003**	**0.2713**	**0.0176**	**0.2889**	**0.0729**	**0.0173**	**0.0903**	**18.6281**	**850.2521**	**868.8802**	**1.2217**	**8.4500e-003**	**901.9417**

	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	N20	CO2e
Percent Reduction	**7.22**	**34.19**	**42.51**	**56.31**	**66.75**	**39.82**	**65.82**	**66.75**	**39.30**	**63.59**	**0.00**	**45.81**	**45.27**	**1.60**	**9.43**	**44.37**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2018	10/26/2018	5	20	
2	Site Preparation	Site Preparation	10/27/2018	11/9/2018	5	10	
3	Grading	Grading	11/10/2018	12/21/2018	5	30	
4	Building Construction	Building Construction	12/22/2018	2/14/2020	5	300	
5	Paving	Paving	2/15/2020	3/13/2020	5	20	
6	Architectural Coating	Architectural Coating	3/14/2020	4/10/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 328,050; Residential Outdoor: 109,350; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Fernjo Estates - Tulare 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

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
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	29.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	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
Paving	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

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

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	0.0372	0.3832	0.2230	3.9000e-004		0.0194	0.0194		0.0181	0.0181	0.0000	35.1241	35.1241	9.6800e-003	0.0000	35.3660
Total	**0.0372**	**0.3832**	**0.2230**	**3.9000e-004**		**0.0194**	**0.0194**		**0.0181**	**0.0181**	**0.0000**	**35.1241**	**35.1241**	**9.6800e-003**	**0.0000**	**35.3660**

3.2 Demolition - 2018

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	8.8000e-004	6.3000e-004	6.2900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0910	1.0910	4.0000e-005	0.0000	1.0921
Total	**8.8000e-004**	**6.3000e-004**	**6.2900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0910**	**1.0910**	**4.0000e-005**	**0.0000**	**1.0921**

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	0.0372	0.3832	0.2230	3.9000e-004		0.0194	0.0194		0.0181	0.0181	0.0000	35.1240	35.1240	9.6800e-003	0.0000	35.3660
Total	**0.0372**	**0.3832**	**0.2230**	**3.9000e-004**		**0.0194**	**0.0194**		**0.0181**	**0.0181**	**0.0000**	**35.1240**	**35.1240**	**9.6800e-003**	**0.0000**	**35.3660**

3.2 Demolition - 2018

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	8.8000e-004	6.3000e-004	6.2900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0910	1.0910	4.0000e-005	0.0000	1.0921
Total	**8.8000e-004**	**6.3000e-004**	**6.2900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0910**	**1.0910**	**4.0000e-005**	**0.0000**	**1.0921**

3.3 Site Preparation - 2018

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.2410	0.1124	1.9000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	17.3800	17.3800	5.4100e-003	0.0000	17.5152
Total	**0.0228**	**0.2410**	**0.1124**	**1.9000e-004**	**0.0903**	**0.0129**	**0.1032**	**0.0497**	**0.0119**	**0.0615**	**0.0000**	**17.3800**	**17.3800**	**5.4100e-003**	**0.0000**	**17.5152**

3.3 Site Preparation - 2018

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	5.3000e-004	3.8000e-004	3.7800e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6546	0.6546	3.0000e-005	0.0000	0.6552
Total	**5.3000e-004**	**3.8000e-004**	**3.7800e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6546**	**0.6546**	**3.0000e-005**	**0.0000**	**0.6552**

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.2410	0.1124	1.9000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	17.3799	17.3799	5.4100e-003	0.0000	17.5152
Total	**0.0228**	**0.2410**	**0.1124**	**1.9000e-004**	**0.0903**	**0.0129**	**0.1032**	**0.0497**	**0.0119**	**0.0615**	**0.0000**	**17.3799**	**17.3799**	**5.4100e-003**	**0.0000**	**17.5152**

3.3 Site Preparation - 2018

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	5.3000e-004	3.8000e-004	3.7800e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6546	0.6546	3.0000e-005	0.0000	0.6552
Total	**5.3000e-004**	**3.8000e-004**	**3.7800e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6546**	**0.6546**	**3.0000e-005**	**0.0000**	**0.6552**

3.4 Grading - 2018

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0764	0.8928	0.5263	9.3000e-004		0.0395	0.0395		0.0364	0.0364	0.0000	84.9728	84.9728	0.0265	0.0000	85.6341
Total	**0.0764**	**0.8928**	**0.5263**	**9.3000e-004**	**0.1301**	**0.0395**	**0.1696**	**0.0540**	**0.0364**	**0.0903**	**0.0000**	**84.9728**	**84.9728**	**0.0265**	**0.0000**	**85.6341**

3.4 Grading - 2018

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	1.7600e-003	1.2500e-003	0.0126	2.0000e-005	2.3900e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1819	2.1819	9.0000e-005	0.0000	2.1841
Total	**1.7600e-003**	**1.2500e-003**	**0.0126**	**2.0000e-005**	**2.3900e-003**	**2.0000e-005**	**2.4100e-003**	**6.4000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.1819**	**2.1819**	**9.0000e-005**	**0.0000**	**2.1841**

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0764	0.8928	0.5263	9.3000e-004		0.0395	0.0395		0.0364	0.0364	0.0000	84.9727	84.9727	0.0265	0.0000	85.6340
Total	**0.0764**	**0.8928**	**0.5263**	**9.3000e-004**	**0.1301**	**0.0395**	**0.1696**	**0.0540**	**0.0364**	**0.0903**	**0.0000**	**84.9727**	**84.9727**	**0.0265**	**0.0000**	**85.6340**

3.4 Grading - 2018

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	1.7600e-003	1.2500e-003	0.0126	2.0000e-005	2.3900e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1819	2.1819	9.0000e-005	0.0000	2.1841
Total	**1.7600e-003**	**1.2500e-003**	**0.0126**	**2.0000e-005**	**2.3900e-003**	**2.0000e-005**	**2.4100e-003**	**6.4000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.1819**	**2.1819**	**9.0000e-005**	**0.0000**	**2.1841**

3.5 Building Construction - 2018

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	8.0400e-003	0.0702	0.0527	8.0000e-005		4.5000e-003	4.5000e-003		4.2300e-003	4.2300e-003	0.0000	7.1330	7.1330	1.7500e-003	0.0000	7.1767
Total	**8.0400e-003**	**0.0702**	**0.0527**	**8.0000e-005**		**4.5000e-003**	**4.5000e-003**		**4.2300e-003**	**4.2300e-003**	**0.0000**	**7.1330**	**7.1330**	**1.7500e-003**	**0.0000**	**7.1767**

3.5 Building Construction - 2018

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	1.6000e-004	3.8400e-003	8.7000e-004	1.0000e-005	1.8000e-004	3.0000e-005	2.1000e-004	5.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.7353	0.7353	4.0000e-005	0.0000	0.7363
Worker	5.1000e-004	3.6000e-004	3.6500e-003	1.0000e-005	6.9000e-004	1.0000e-005	7.0000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.6328	0.6328	3.0000e-005	0.0000	0.6334
Total	**6.7000e-004**	**4.2000e-003**	**4.5200e-003**	**2.0000e-005**	**8.7000e-004**	**4.0000e-005**	**9.1000e-004**	**2.3000e-004**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**1.3681**	**1.3681**	**7.0000e-005**	**0.0000**	**1.3697**

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	8.0400e-003	0.0702	0.0527	8.0000e-005		4.5000e-003	4.5000e-003		4.2300e-003	4.2300e-003	0.0000	7.1330	7.1330	1.7500e-003	0.0000	7.1767
Total	**8.0400e-003**	**0.0702**	**0.0527**	**8.0000e-005**		**4.5000e-003**	**4.5000e-003**		**4.2300e-003**	**4.2300e-003**	**0.0000**	**7.1330**	**7.1330**	**1.7500e-003**	**0.0000**	**7.1767**

3.5 Building Construction - 2018

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	1.6000e-004	3.8400e-003	8.7000e-004	1.0000e-005	1.8000e-004	3.0000e-005	2.1000e-004	5.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.7353	0.7353	4.0000e-005	0.0000	0.7363
Worker	5.1000e-004	3.6000e-004	3.6500e-003	1.0000e-005	6.9000e-004	1.0000e-005	7.0000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.6328	0.6328	3.0000e-005	0.0000	0.6334
Total	**6.7000e-004**	**4.2000e-003**	**4.5200e-003**	**2.0000e-005**	**8.7000e-004**	**4.0000e-005**	**9.1000e-004**	**2.3000e-004**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**1.3681**	**1.3681**	**7.0000e-005**	**0.0000**	**1.3697**

3.5 Building Construction - 2019

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	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8110	306.8110	0.0747	0.0000	308.6795
Total	**0.3081**	**2.7508**	**2.2399**	**3.5100e-003**		**0.1683**	**0.1683**		**0.1583**	**0.1583**	**0.0000**	**306.8110**	**306.8110**	**0.0747**	**0.0000**	**308.6795**

3.5 Building Construction - 2019

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	5.9200e-003	0.1579	0.0336	3.3000e-004	7.7600e-003	1.2600e-003	9.0200e-003	2.2400e-003	1.2100e-003	3.4500e-003	0.0000	31.7357	31.7357	1.6100e-003	0.0000	31.7760
Worker	0.0198	0.0136	0.1381	3.0000e-004	0.0301	2.2000e-004	0.0304	8.0100e-003	2.0000e-004	8.2200e-003	0.0000	26.7193	26.7193	9.5000e-004	0.0000	26.7431
Total	**0.0257**	**0.1716**	**0.1716**	**6.3000e-004**	**0.0379**	**1.4800e-003**	**0.0394**	**0.0103**	**1.4100e-003**	**0.0117**	**0.0000**	**58.4550**	**58.4550**	**2.5600e-003**	**0.0000**	**58.5191**

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	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8106	306.8106	0.0747	0.0000	308.6792
Total	**0.3081**	**2.7508**	**2.2399**	**3.5100e-003**		**0.1683**	**0.1683**		**0.1583**	**0.1583**	**0.0000**	**306.8106**	**306.8106**	**0.0747**	**0.0000**	**308.6792**

3.5 Building Construction - 2019

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	5.9200e-003	0.1579	0.0336	3.3000e-004	7.7600e-003	1.2600e-003	9.0200e-003	2.2400e-003	1.2100e-003	3.4500e-003	0.0000	31.7357	31.7357	1.6100e-003	0.0000	31.7760
Worker	0.0198	0.0136	0.1381	3.0000e-004	0.0301	2.2000e-004	0.0304	8.0100e-003	2.0000e-004	8.2200e-003	0.0000	26.7193	26.7193	9.5000e-004	0.0000	26.7431
Total	**0.0257**	**0.1716**	**0.1716**	**6.3000e-004**	**0.0379**	**1.4800e-003**	**0.0394**	**0.0103**	**1.4100e-003**	**0.0117**	**0.0000**	**58.4550**	**58.4550**	**2.5600e-003**	**0.0000**	**58.5191**

3.5 Building Construction - 2020

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	0.0350	0.3166	0.2780	4.4000e-004		0.0184	0.0184		0.0173	0.0173	0.0000	38.2157	38.2157	9.3200e-003	0.0000	38.4487
Total	**0.0350**	**0.3166**	**0.2780**	**4.4000e-004**		**0.0184**	**0.0184**		**0.0173**	**0.0173**	**0.0000**	**38.2157**	**38.2157**	**9.3200e-003**	**0.0000**	**38.4487**

3.5 Building Construction - 2020

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	5.9000e-004	0.0181	3.6000e-003	4.0000e-005	9.8000e-004	1.0000e-004	1.0800e-003	2.8000e-004	1.0000e-004	3.8000e-004	0.0000	3.9829	3.9829	1.8000e-004	0.0000	3.9875
Worker	2.2600e-003	1.5000e-003	0.0153	4.0000e-005	3.8100e-003	3.0000e-005	3.8400e-003	1.0100e-003	2.0000e-005	1.0400e-003	0.0000	3.2743	3.2743	1.0000e-004	0.0000	3.2769
Total	**2.8500e-003**	**0.0196**	**0.0189**	**8.0000e-005**	**4.7900e-003**	**1.3000e-004**	**4.9200e-003**	**1.2900e-003**	**1.2000e-004**	**1.4200e-003**	**0.0000**	**7.2572**	**7.2572**	**2.8000e-004**	**0.0000**	**7.2644**

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	0.0350	0.3166	0.2780	4.4000e-004		0.0184	0.0184		0.0173	0.0173	0.0000	38.2156	38.2156	9.3200e-003	0.0000	38.4487
Total	**0.0350**	**0.3166**	**0.2780**	**4.4000e-004**		**0.0184**	**0.0184**		**0.0173**	**0.0173**	**0.0000**	**38.2156**	**38.2156**	**9.3200e-003**	**0.0000**	**38.4487**

3.5 Building Construction - 2020

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	5.9000e-004	0.0181	3.6000e-003	4.0000e-005	9.8000e-004	1.0000e-004	1.0800e-003	2.8000e-004	1.0000e-004	3.8000e-004	0.0000	3.9829	3.9829	1.8000e-004	0.0000	3.9875
Worker	2.2600e-003	1.5000e-003	0.0153	4.0000e-005	3.8100e-003	3.0000e-005	3.8400e-003	1.0100e-003	2.0000e-005	1.0400e-003	0.0000	3.2743	3.2743	1.0000e-004	0.0000	3.2769
Total	**2.8500e-003**	**0.0196**	**0.0189**	**8.0000e-005**	**4.7900e-003**	**1.3000e-004**	**4.9200e-003**	**1.2900e-003**	**1.2000e-004**	**1.4200e-003**	**0.0000**	**7.2572**	**7.2572**	**2.8000e-004**	**0.0000**	**7.2644**

3.6 Paving - 2020

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	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1902
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0136**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1902**

3.6 Paving - 2020

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-004	4.7000e-004	4.7900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0264	1.0264	3.0000e-005	0.0000	1.0272
Total	**7.1000e-004**	**4.7000e-004**	**4.7900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0264**	**1.0264**	**3.0000e-005**	**0.0000**	**1.0272**

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	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1901
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0136**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1901**

3.6 Paving - 2020

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-004	4.7000e-004	4.7900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0264	1.0264	3.0000e-005	0.0000	1.0272
Total	**7.1000e-004**	**4.7000e-004**	**4.7900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0264**	**1.0264**	**3.0000e-005**	**0.0000**	**1.0272**

3.7 Architectural Coating - 2020

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	1.5205					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total	**1.5229**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.7 Architectural Coating - 2020

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	2.8000e-004	1.9000e-004	1.9200e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4106	0.4106	1.0000e-005	0.0000	0.4109
Total	**2.8000e-004**	**1.9000e-004**	**1.9200e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4106**	**0.4106**	**1.0000e-005**	**0.0000**	**0.4109**

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	1.5205					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total	**1.5229**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.7 Architectural Coating - 2020

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	2.8000e-004	1.9000e-004	1.9200e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4106	0.4106	1.0000e-005	0.0000	0.4109
Total	**2.8000e-004**	**1.9000e-004**	**1.9200e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4106**	**0.4106**	**1.0000e-005**	**0.0000**	**0.4109**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

	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	0.2321	1.7026	1.6932	5.1400e-003	0.2713	5.6700e-003	0.2770	0.0729	5.3600e-003	0.0783	0.0000	476.8643	476.8643	0.0342	0.0000	477.7190
Unmitigated	0.3089	2.6059	3.4076	0.0124	0.8159	0.0141	0.8300	0.2193	0.0133	0.2327	0.0000	1,146.5957	1,146.5957	0.0530	0.0000	1,147.9210

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	771.12	802.71	698.22	2,156,948	717,185
Total	771.12	802.71	698.22	2,156,948	717,185

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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	38.40	22.60	39.00	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	0.506900	0.034567	0.171206	0.149208	0.024362	0.005798	0.021031	0.077362	0.001819	0.001371	0.004402	0.001155	0.000818

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	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	235.7454	235.7454	9.7300e-003	2.0100e-003	236.5888
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	238.1691	238.1691	9.8300e-003	2.0300e-003	239.0212
NaturalGas Mitigated	0.0125	0.1069	0.0455	6.8000e-004		8.6500e-003	8.6500e-003		8.6500e-003	8.6500e-003	0.0000	123.8510	123.8510	2.3700e-003	2.2700e-003	124.5869
NaturalGas Unmitigated	0.0137	0.1169	0.0497	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003	0.0000	135.3218	135.3218	2.5900e-003	2.4800e-003	136.1259

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	2.53583e+006	0.0137	0.1169	0.0497	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003	0.0000	135.3218	135.3218	2.5900e-003	2.4800e-003	136.1259
Total		**0.0137**	**0.1169**	**0.0497**	**7.5000e-004**		**9.4500e-003**	**9.4500e-003**		**9.4500e-003**	**9.4500e-003**	**0.0000**	**135.3218**	**135.3218**	**2.5900e-003**	**2.4800e-003**	**136.1259**

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	2.32088e+006	0.0125	0.1069	0.0455	6.8000e-004		8.6500e-003	8.6500e-003		8.6500e-003	8.6500e-003	0.0000	123.8510	123.8510	2.3700e-003	2.2700e-003	124.5869
Total		**0.0125**	**0.1069**	**0.0455**	**6.8000e-004**		**8.6500e-003**	**8.6500e-003**		**8.6500e-003**	**8.6500e-003**	**0.0000**	**123.8510**	**123.8510**	**2.3700e-003**	**2.2700e-003**	**124.5869**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	747499	238.1691	9.8300e-003	2.0300e-003	239.0212
Total		**238.1691**	**9.8300e-003**	**2.0300e-003**	**239.0212**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	739892	235.7454	9.7300e-003	2.0100e-003	236.5888
Total		**235.7454**	**9.7300e-003**	**2.0100e-003**	**236.5888**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	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	0.8031	6.9800e-003	0.6034	3.0000e-005		3.3200e-003	3.3200e-003		3.3200e-003	3.3200e-003	0.0000	0.9824	0.9824	9.6000e-004	0.0000	1.0064
Unmitigated	0.8067	0.0373	0.6163	2.3000e-004		5.7700e-003	5.7700e-003		5.7700e-003	5.7700e-003	0.0000	36.0722	36.0722	1.6300e-003	6.4000e-004	36.3047

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	0.1521					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6327					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.5500e-003	0.0303	0.0129	1.9000e-004		2.4500e-003	2.4500e-003		2.4500e-003	2.4500e-003	0.0000	35.0898	35.0898	6.7000e-004	6.4000e-004	35.2983
Landscaping	0.0184	6.9800e-003	0.6034	3.0000e-005		3.3200e-003	3.3200e-003		3.3200e-003	3.3200e-003	0.0000	0.9824	0.9824	9.6000e-004	0.0000	1.0064
Total	**0.8067**	**0.0373**	**0.6163**	**2.2000e-004**		**5.7700e-003**	**5.7700e-003**		**5.7700e-003**	**5.7700e-003**	**0.0000**	**36.0722**	**36.0722**	**1.6300e-003**	**6.4000e-004**	**36.3047**

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	0.1521					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6327					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0184	6.9800e-003	0.6034	3.0000e-005		3.3200e-003	3.3200e-003		3.3200e-003	3.3200e-003	0.0000	0.9824	0.9824	9.6000e-004	0.0000	1.0064
Total	**0.8031**	**6.9800e-003**	**0.6034**	**3.0000e-005**		**3.3200e-003**	**3.3200e-003**		**3.3200e-003**	**3.3200e-003**	**0.0000**	**0.9824**	**0.9824**	**9.6000e-004**	**0.0000**	**1.0064**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.4833	0.1725	4.1700e-003	20.0383
Unmitigated	14.4833	0.1725	4.1700e-003	20.0383

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	5.27748 / 3.3271	14.4833	0.1725	4.1700e-003	20.0383
Total		**14.4833**	**0.1725**	**4.1700e-003**	**20.0383**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	5.27748 / 3.3271	14.4833	0.1725	4.1700e-003	20.0383
Total		**14.4833**	**0.1725**	**4.1700e-003**	**20.0383**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.9538	1.0019	0.0000	42.0023
Unmitigated	16.9538	1.0019	0.0000	42.0023

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	83.52	16.9538	1.0019	0.0000	42.0023
Total		**16.9538**	**1.0019**	**0.0000**	**42.0023**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	83.52	16.9538	1.0019	0.0000	42.0023
Total		**16.9538**	**1.0019**	**0.0000**	**42.0023**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Cultural Records Search Results

California
Historical
Resources
Information
System

Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

To: Molly McDonnel
4 Creeks, Inc.
324 S. Santa Fe, Suite A
Visalia, CA 93292

Record Search 18-265

Date: June 15, 2018

Re: Fernjo Estates

County: Tulare

Map(s): Tulare 7.5'

CULTURAL RESOURCES RECORDS SEARCH

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, Historic Property Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND WITHIN THE ONE-HALF MILE RADIUS

According to the information in our files, there have been no previous cultural resource studies conducted within the project area. There have been two studies conducted within the one-half mile radius, TU-00541 and TU-01292.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND WITHIN THE ONE-HALF MILE RADIUS

There are no recorded cultural resources within project area or within the one-half mile radius and it is not known if any exist there.

There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project consists of construction of 81 single-family dwellings. Further, we understand the property is mostly used for agricultural purposes with the exception of on preexisting single-family structure. Please note that agriculture does not constitute development, as it does not destroy cultural resources but merely moves them around within the plow zone. Because this project area has not been previously surveyed for cultural resources, it is unknown if any exist there. Therefore, prior to any further ground disturbance activities, we recommend a qualified, professional archaeologist conduct a field survey to determine if cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file in order to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:

Celeste M. Thomson, Coordinator

Date: June 15, 2018

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.