



DRAFT
Indianola Subdivision Project
Initial Study/Mitigated Negative Declaration
City of Sanger, Fresno County, California

Prepared for:



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Report Date: February 4, 2015

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SECTION 1: INTRODUCTION

1.1 - Purpose

The purpose of this Initial Study/Mitigated Negative Declaration (IS/MND) is to identify any potential environmental impacts from implementation of the Indianola Subdivision project (project) located adjacent to the City of Sanger in unincorporated Fresno County, California. Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15367, the City of Sanger is the Lead Agency in the preparation of this IS/MND and any additional environmental documentation required for the project. The City has discretionary authority over the project. The intended use of this document is to disclose the environmental impacts resulting from development of the project and to provide the basis for input from public agencies, organizations, and interested members of the public. Although not required by CEQA, this Draft ISMND will be circulated for 30 days during which time the public can make comments on the analyses contained herein. A Final IS/MND will be prepared to provide responses to comments received during the 30-day review period.

The remainder of this section provides a brief description of the project location and the characteristics of the project. Section 2 includes an environmental checklist giving an overview of the potential impacts that may result from project implementation. Section 2 elaborates on the information contained in the environmental checklist, along with justification for the responses provided in the environmental checklist.

1.2 - Project Location

The 78.34-acre project site is located between E. Annadale Avenue and E. North Avenue directly adjacent to the City limits within the City of Sanger's Sphere of Influence (SOI) in unincorporated Fresno County, California (Exhibit 1). The project site is surrounded by agricultural uses (orchards) (west), single-family residential uses along E. Annadale Avenue, Sanger High School (north), single-family residential uses (east), agricultural and residential land uses along E. North Avenue, and the Chooljian Brothers Packing Company (south) (Exhibit 2).

1.3 - Environmental Setting

1.3.1 - Existing Conditions and Land Use

The rectangular shaped project site contains undeveloped land previously used for agricultural purposes. Grape vines are still present on the northern half of the project site. An approximately 70,000-square-foot fenced stormwater basin is located in the southeastern corner and currently serves the adjacent subdivision to the east (approximately 80 acres). What appears to be irregular soil stockpiles or disposals are located west of the fenced stormwater basin. An informal off-road vehicle, motorcycle, or bicycle racetrack is also located west of the fenced stormwater basin. Vehicle tires line portions of the track. Onsite soils are disturbed by past agricultural uses and two previous residential uses located in the south of the site along E. North Avenue. The California Department of Conservation Farmland Mapping and Monitoring Program designates this project site as containing "Prime Farmland," "Farmland of Statewide Importance," and "Farmland of Local Importance."

1.3.2 - General Plan and Zoning Designations

The project site is currently in an unincorporated area of Fresno County. Fresno County zones the project site as AE-20 (Exclusive Agricultural, 20-acre minimum). No Fresno County General Plan designation is applied to the site because it is within the Sanger SOI.

The City of Sanger General Plan designates the project site "Residential-Medium Low." The Sanger Zoning Ordinance pre-zones the majority of the project site "R-1-6" with the exception of approximately 4.5 acres near the middle of the eastern half of the project site, which is prezoned "RSC" (Recreational, School and Conservation).

1.4 - Project Background

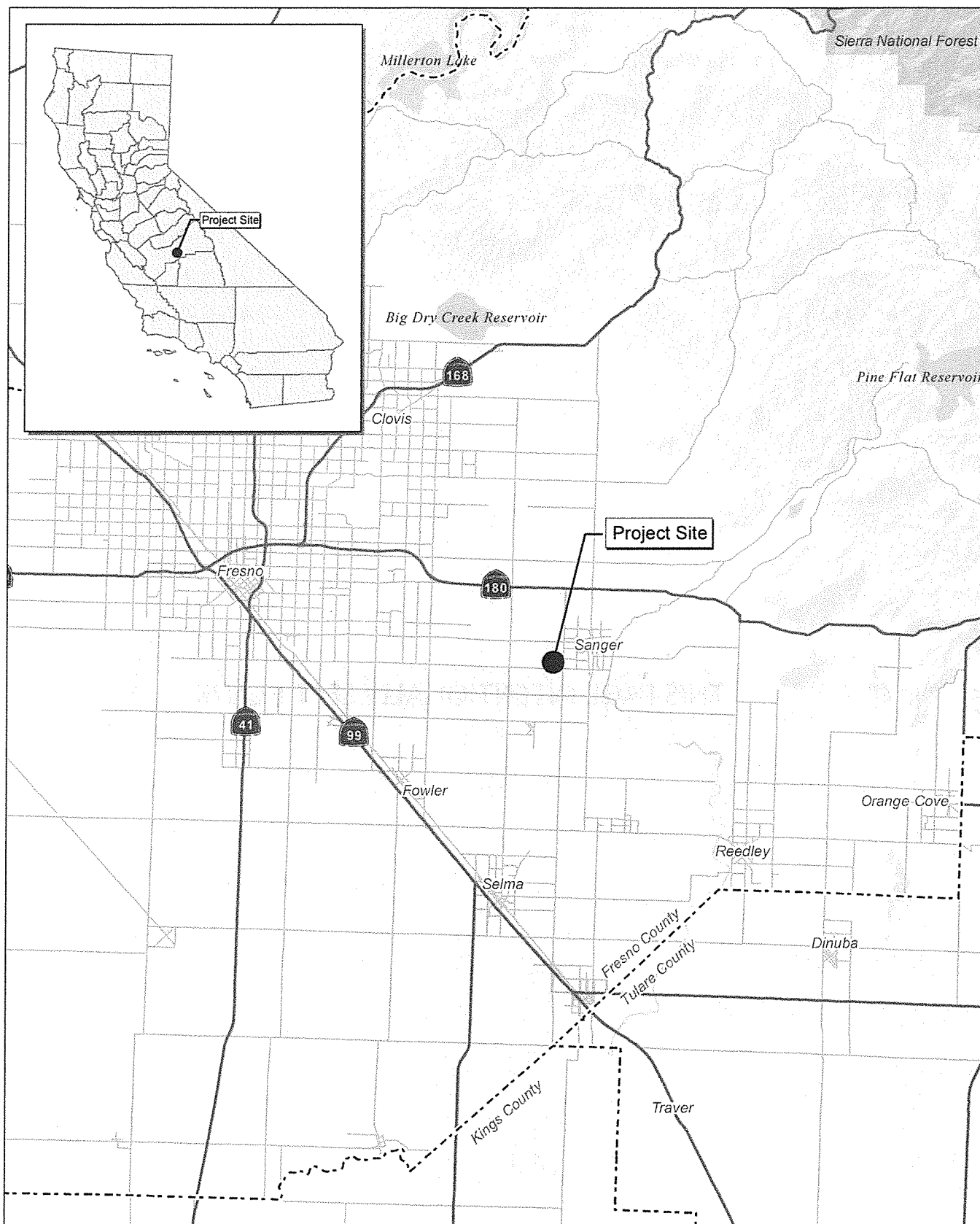
In October 2005, the City of Sanger prepared an Initial Study and Proposed Negative Declaration for a previously proposed project on the project site (Vesting Tentative Tract Map No. 5577; Prezone No. 50-04; Conditional Use Permit No. 05-02; and Annexation No. 05-04). The previously proposed project included a rezone (prezone), annexation, and the development of 445 single-family residences. The previously prepared Initial Study and Proposed Negative Declaration concluded that no potentially significant environmental effects would result.

As a result of the previously proposed project, the site was prezoned from the Fresno County zoning classification of AE-20 (Exclusive Agricultural, 20-acre minimum) to the City zoning classification of R-1-6 (Single-Family Residential – 6,000-square-foot minimum lot sizes) consistent with the land use designation of Medium Density Residential. In addition, a small portion near the middle of the eastern half of the project site was prezoned as RSC (Recreational, School and Conservation) in anticipation of park development. However, the Vesting Tentative Tract Map and Annexation were not implemented and, ultimately, the previously proposed project was not developed.

1.5 - Project Description

The current project includes the subdivision of the site into 312 lots for the development of single-family residences (Exhibit 3). Average lot sizes would range from 6,678 to 7,344 square feet. The single-family residences would range from 1,762 square feet to 3,118 square feet. Overall density would be 4.3 dwelling units per acre. The residences would exhibit modern architecture in Spanish, Tuscan, Traditional, or Craftsman style. The residences would have tile roofs and would be predominantly stucco sided with varied accents of brick, stone, shutters, board and batten, and lap siding. Residences would be provided with instant water heaters, solar-ready electrical wiring, dual glazed windows, and energy efficient-rated appliances, HVAC systems, insulation, and lighting.

Three tot lots would be constructed throughout the site. A network of paseos would provide neighborhood connections to the tot lots. A dual-use basin would be located in the southeast corner of the project site where an existing stormwater basin exists and would be available for recreational uses when not occupied with stormwater.



Source: Census 2000 Data, The CaSIL.



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Exhibit 1 Regional Location Map

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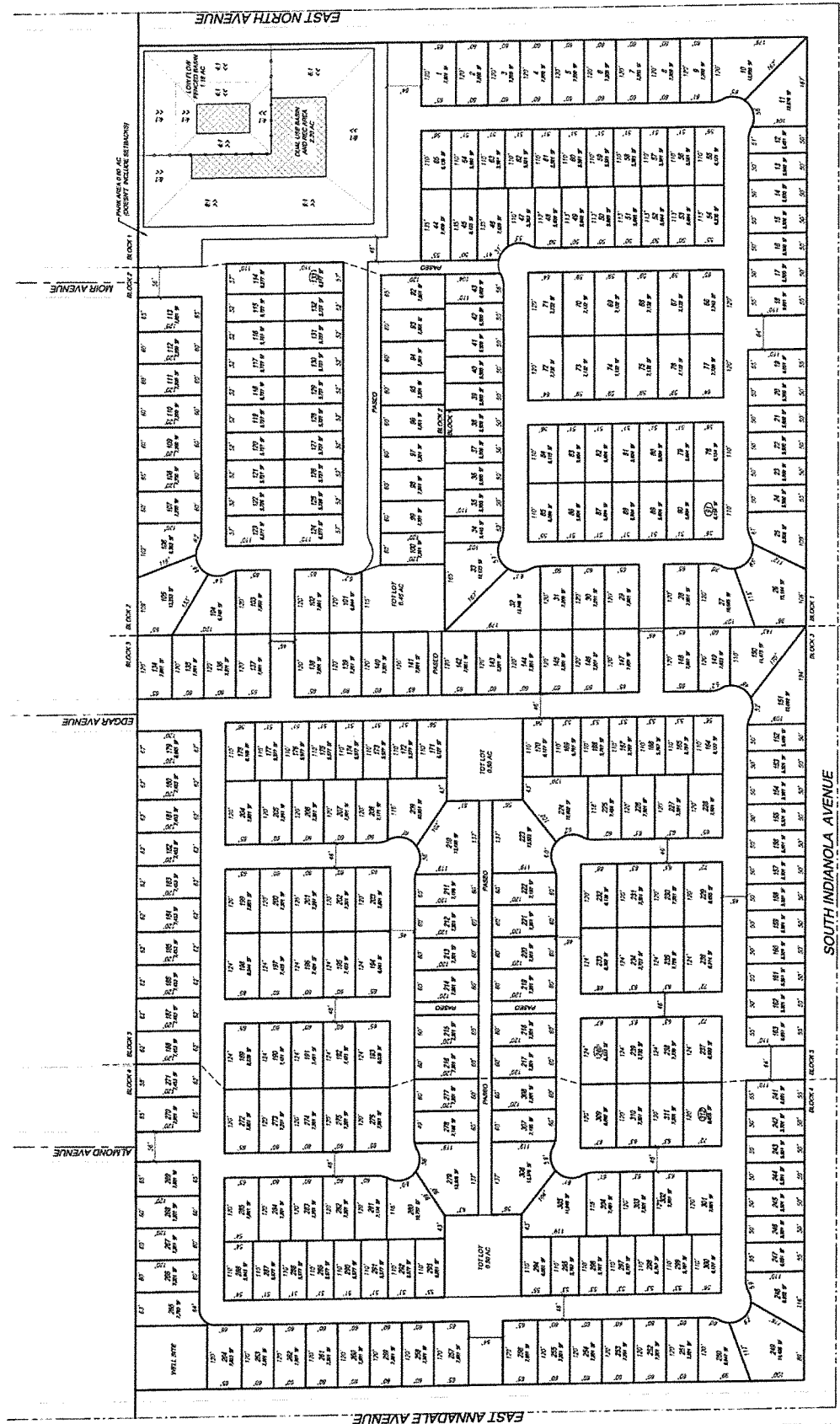


Source: ESRI Aerial Imagery.



Exhibit 2 Local Vicinity Map Aerial Base

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Note: Site plan is subject to change

Source: Precision Civil Engineering, Inc., June 2014.



Exhibit 3 Site Plan

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A lower, low-flow basin would be located within the dual-use basin but would be fenced to restrict access. The basins would continue to serve the adjoining 80-acre subdivision to the east.

Access to the site would be provided from the east via connections to the current terminus of Almond Avenue, Edgar Avenue, and Moir Avenue. A single access point would connect to E. Annadale Avenue to the north. Similarly, a single access point would connect to E. North Avenue to the south. In addition, the applicant would extend Indianola Avenue by approximately 2,610 feet from its current terminus at E. Annadale Avenue south to E. North Avenue, and provide two points of access from the extended roadway. The extended E. Annadale Avenue would be 64 feet in width. Internal circulation would consist of a network of streets connecting to the aforementioned access points. Bus turnouts would be provided at Indianola Avenue, Annadale Avenue, and North Avenue. Front-yard landscaping would employ drought-tolerant species and low-flow irrigation equipment consistent with city requirements. A 6-foot-high masonry wall would be located along the project's frontages with Indianola Avenue and Annadale Avenue.

Total impervious surface area would be approximately 27.42 acres.

Utility services would be provided by the City of Sanger and Pacific Gas & Electric Company. Sewer and water service connections are located in adjacent road right-of-ways. A well site would be located in the northeast corner of the project site and would be dedicated to the City for use in conjunction with the City's existing potable water service.

Rezone

As previously indicated, a 4.5 acre area located in the middle of the eastern half of the project site, is rezoned a "RSC" (Recreational, School and Conservation). As a part of this project, the rezoning will be changed to "R-1-6," consistent with the remainder of the project site.

Annexation and Detachment

The project site would be annexed to the City of Sanger prior to development. Annexation would require approval by the Fresno County Local Agency Formation Commission (LAFCo). In addition, the project would be detached from the Fresno County Fire Protection District and Consolidated Irrigation District. In accordance with LAFCo requirements, a transition agreement is in place between the Fresno County Fire District and the City of Sanger Fire Department.

Construction Schedule

The project's construction schedule is subject to change dependent on market conditions. However, for the purposes of this analysis, it is conservatively assumed that construction could begin as early as spring 2016 and would occur in four phases over 5 years. The four phases would consist of 91, 42, 107, and 72 homes, respectively.

1.6 - Required Discretionary Approvals

The project would require the following discretionary approvals from the City of Sanger:

- Pre-Zoning (No. 2014-05)
- Conditional Use Permit for a Planned Unit Development (CUP No. 2014-04)
- Tentative Tract Map (No. 6093)
- Annexation/Detachment (No. 2014-1)
- Certification of IS/MND

In addition, annexation of the project by the City of Sanger would require approval from the Fresno County LAFCo. As such, the Fresno County LAFCo is a responsible agency as defined by CEQA Guidelines Section 15381. Fresno County LAFCo would also approve the sites detachment from the Fresno County Fire Protection District and the Consolidated Irrigation District. LAFCo has the power to approve, modify and approve, or deny applications and impose terms and conditions. However, LAFCo may not exercise direct land use authority through use of zoning or subdivision processes.

1.7 - Intended Uses of this Document

This IS/MND has been prepared to determine the appropriate scope and level of detail required in completing the environmental analysis for the project. This document will also serve as a basis for soliciting comments and input from members of the public and public agencies regarding the project. The IS/MND will be circulated for a minimum of 30 days, during which period comments concerning the analysis contained in the IS/MND should be sent to:

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City of Sanger, Planning Division
1700 7th Street
Sanger, CA 93657
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1.7.1 - Responsible and Trustee Agencies

As previously mentioned, a number of other agencies in addition to the City of Sanger will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This Draft ISMND will provide environmental information to these agencies and other interested agencies, which may have approval authority over some aspect of the project or that otherwise may be involved in coordinating project implementation. These agencies may include but are not limited to the following:

- Fresno County Local Agency Formation Commission
- Central Valley Regional Water Quality Control Board
- San Joaquin Valley Air Pollution Control District
- Fresno County Fire Protection District
- Consolidated Irrigation District

SECTION 2: ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

Environmental Factors Potentially Affected			
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.			
<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture and Forestry Resources	<input type="checkbox"/> Air Quality	
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Geology/Soils	
<input type="checkbox"/> Greenhouse Gas Emissions	<input checked="" type="checkbox"/> Hazards/Hazardous Materials	<input type="checkbox"/> Hydrology/Water Quality	
<input type="checkbox"/> Land Use/Planning	<input type="checkbox"/> Mineral Resources	<input checked="" type="checkbox"/> Noise	
<input type="checkbox"/> Population/Housing	<input checked="" type="checkbox"/> Public Services	<input type="checkbox"/> Recreation	
<input checked="" type="checkbox"/> Transportation/Traffic	<input checked="" type="checkbox"/> Utilities/Services Systems	<input checked="" type="checkbox"/> Mandatory Findings of Significance	
Environmental Determination			

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 measure based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: _____ Signed: _____

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Aesthetics <i>Would the project:</i>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

Would the project:

a) Have a substantial adverse effect on a scenic vista?

No impact. The Sanger General Plan does not identify any scenic resources within the project vicinity. This project is visually consistent with the surrounding urban development and has no scenic vistas. No impact would occur.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?

No impact. The nearest state highway to the project site is State Route 180 (SR-80), which runs approximately 2 miles north of Sanger (approximately 2.5 miles from the project site). According to Caltrans's California Scenic Highway Mapping System, SR-180, east of Sanger, is eligible for designation as a scenic highway but has not yet been designated (Caltrans 2014). The Fresno County GP designates Jensen Avenue, located 0.5 mile north of the project site as a Scenic Drive; however, views of the project site from Jensen Avenue are obstructed due to distance and intervening structures. SR-180 is not visible from the project site. Furthermore, the project would be visually consistent with the surrounding existing residential development. As such, no impact to scenic resources would occur.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than significant impact. The project site's existing conditions consist of disturbed land with ruderal vegetation and the remnants of a vineyard. The project site's existing visual character does not exhibit any extraordinary or unique qualities. The project site is located adjacent to single-family residential uses to the north and east, and the Sanger High School to the northeast. Agricultural lands are located to the west and south. While the project would convert the existing former agricultural lands to an urban setting, the proposed residential development would provide architecturally compatible residential designs with street and landscaping improvements in accordance with City requirements. In addition, the project would undergo design review, which would further ensure visual compatibility. Views of the project would be consistent with the surrounding area, which is primarily developed with or planned for residential and commercial uses to the north, east, and south. As such, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings. Impacts would be less than significant.

d) 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 project would include exterior lighting consistent with single-family residential land use. Such lighting typically has low light intensity and would be similar in nature existing residential lighting in the area. The project would comply with all applicable City regulations and design review procedures to reduce light and glare impacts. Therefore, impacts associated with light or glare would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. Agriculture and Forestry Resources <i>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 Dept. 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 Forest Protocols adopted by the California Air Resources Board. Would the project:</i>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

Would the project:

- 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?**

Less than significant impact. The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) map this project site as containing "Prime Farmland," "Farmland of

Statewide Importance”, and “Farmland of Local Importance” (Exhibit 4). Onsite soils consist of a mixture of Exeter loam, greenfield sandy loam, Hanford sandy loam, Hanford fine sandy loam, and Tujunga loamy sand (Exhibit 5). Development of the project would permanently convert these lands to non-agricultural use. However, the project site is located directly adjacent to the Sanger city limits and within the City’s SOI and, as such, has been planned for urban development and conversion of the site to non-agricultural uses has been considered in the General Plan EIR. Furthermore, agricultural uses are not consistent with the site’s land use designation or zoning.

Because of the project site’s FMMP designations and its direct proximity to agricultural land, a Land Evaluation and Site Assessment (LESA) model has been prepared. The LESA model provides an analytical approach for rating the relative quality of land resources based upon specific measurable features. Factors considered by the LESA model include soils, site acreage, water availability, and surrounding land uses (Exhibit 6). The LESA model worksheets are provided in Appendix A.

Table 1 summarizes the LESA model score results.

Table 1: LESA Model Scoring Summary

Category	Factor	Factor Scores	Factor Weight	Weighted Factor Scores	Remarks
Land Evaluation	Land Capability Class	40	0.25	10	The project site is not irrigated and contains primarily Class 4 soils, considered to have severe limitations that reduce the choice of plants or that require very careful conservation practices, or both.
	Storie Index	20.606	0.25	0.65	The project site has a low Storie Index because of the limiting factors of onsite soils.
	Subtotal	—	0.50	10.65	—
Site Assessment	Project Size	20	0.15	3	The project site size rating is 3 because of the limiting factors of onsite soils.
	Water Resources Availability	75	0.15	11.25	Irrigated production is feasible and has historically occurred on the project site. However, the groundwater system providing irrigation water has been removed. Water is not provided to the site by an irrigation district. If water were to be provided by an irrigation district, water cutbacks would occur during dry years. For a conservative analysis, it is assumed that no economic restrictions are present.

Table 1 (cont.): LESA Model Scoring Summary

Category	Factor	Factor Scores	Factor Weight	Weighted Factor Scores	Remarks
Site Assessment (cont.)	Surrounding Agricultural Lands	60	0.15	9	Farmland accounts for 65 percent of the surrounding land uses.
	Surrounding Protected Resource Lands	0.0	0.05	0	Only 12 percent of surrounding farmlands are protected resource lands.
	Subtotal	—	0.50	23.25	—
Total				33.90	
Note: LESA scoring sheet provided in Appendix A. Source: FCS 2014.					

As shown in Table 1, the project site has a total score of 33.90. The LESA model indicates that the conversion of agricultural lands to non-agricultural uses are not considered significant for scores between 0 and 39 points. For scores between 40 and 59 points, the conversion of the land is considered significant only if the land evaluation and site assessment subscores are each greater than or equal to 20 points. In this case, the total score is below 40 and only the site assessment score is greater than 20 points. Therefore, conversion of the project site from agricultural to non-agricultural land is not considered significant as determined by the LESA Model.

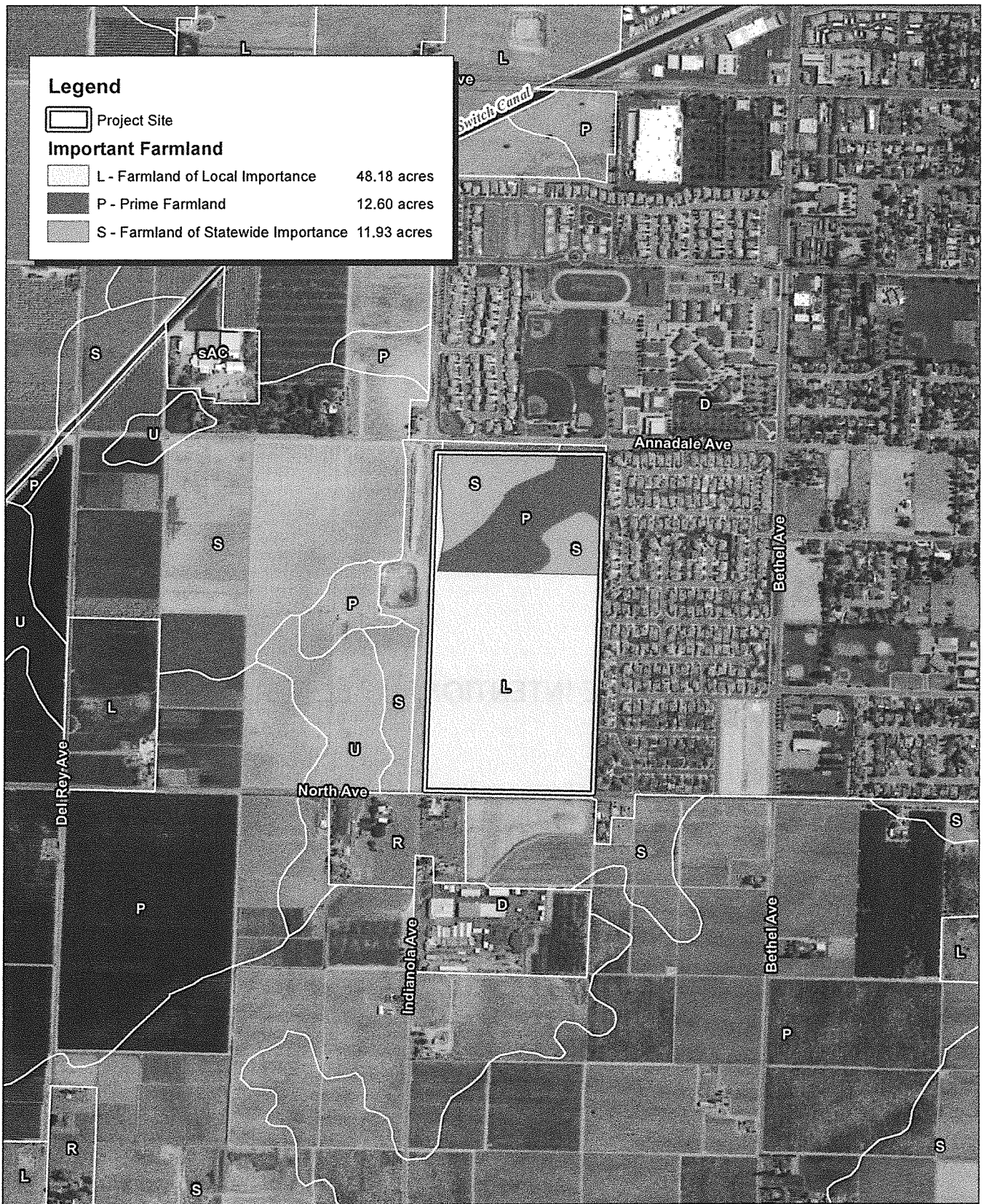
Additionally, because the project site's zoning and land use designation is residential, the General Plan has already contemplated the loss of the onsite agricultural land. Therefore, impacts related to conversion of important farmland would be less than significant.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No impact. The project site is rezoned as R-1-6 (residential). This zoning designation is non-agriculture in nature and the project site is not encumbered by a Williamson Act contract. No impacts would occur.

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))?

No impact. The project site is rezoned as R-1-6 (residential) which is not a forest land zoning district. This condition precludes the possibility of a conflict with a forest zoning designation. No impacts would occur.

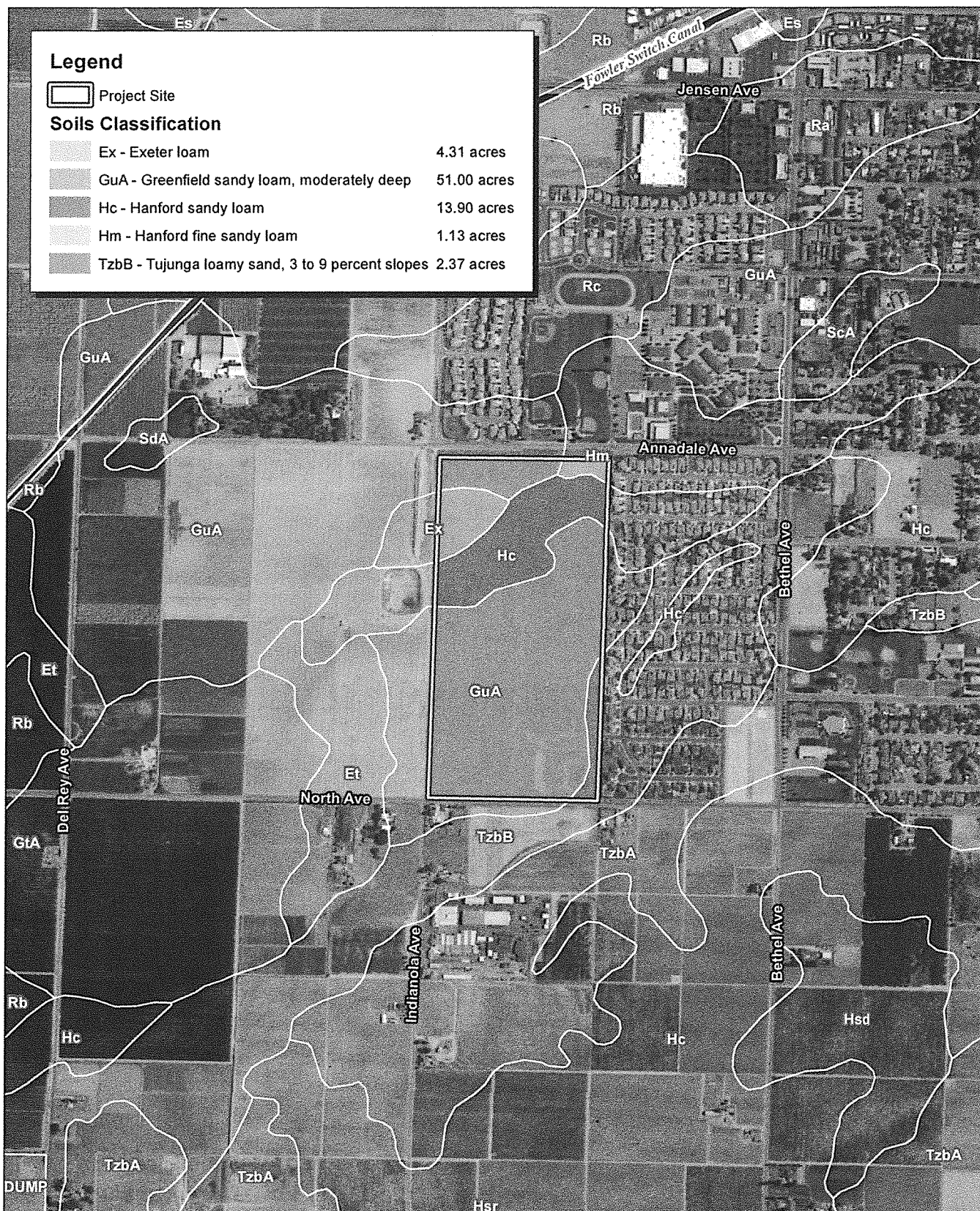


Source: ESRI Aerial Imagery. FMMP Data, Fresno County 2010.

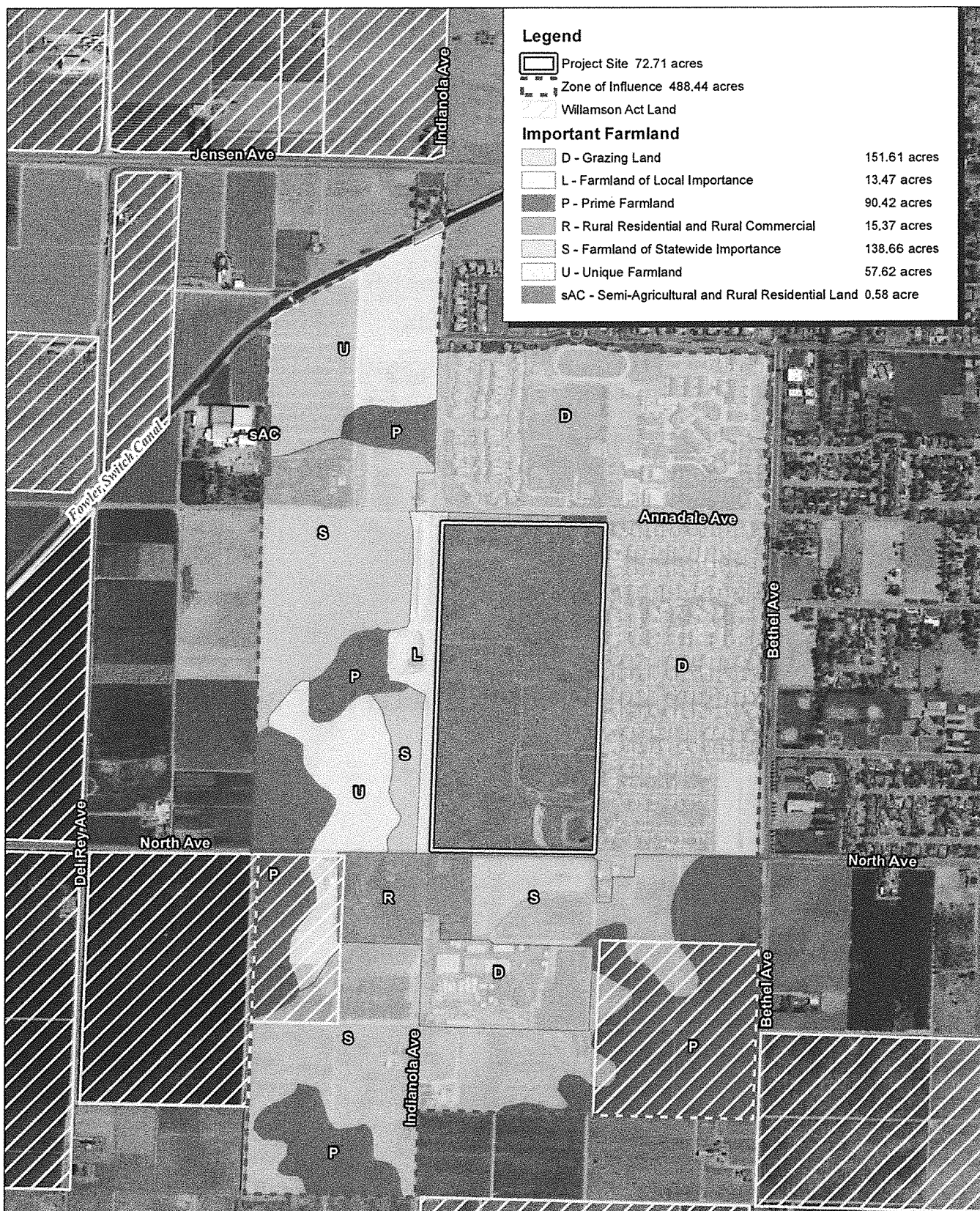


Exhibit 4 Important Farmland Map

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Exhibit 6 Zone of Influence

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d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. The project site does not contain nor is it adjacent to any forest land. No impact would occur.

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

Less than significant impact. The project site is located directly adjacent to existing agricultural operations. Agricultural operations have the potential to result in odors, dust, noise, pesticide hazards, and other operations that are inherent to agricultural land use and may inadvertently affect adjacent lands. As a condition of approval, a Right-To-Farm Notice will be required on the deed of each lot of the subdivision to protect adjacent farmland from nuisance lawsuits and ensure the project would not result in conversion of adjacent agricultural lands to non-agricultural uses. Impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. Air Quality <i>Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.</i> <i>Would the project:</i>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

The project is located within the San Joaquin Valley Air Basin (SJVAB or Air Basin). The SJVAB lies within the central portion of the San Joaquin Valley and is approximately 300 miles long and shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada mountains are along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the south boundary (6,000 to 8,000 feet in elevation). The project is located within the San Joaquin Valley Air Pollution Control District (SJVAPCD or District), which includes eight counties in the Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the San Joaquin Valley Air Basin portion of Kern.

The basin is designated as nonattainment for state ozone, PM₁₀, and PM_{2.5}; and federal ozone and PM_{2.5} standards. Therefore, the pollutants of concern for the project are ozone, PM₁₀, and PM_{2.5}.

Ozone is not emitted directly into the air but is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, which include reactive organic gases (ROG) and NO_x, react in the atmosphere in the presence of sunlight to form ozone. Significant ozone formation generally requires an adequate amount of ozone precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. The conditions for ozone formation are prevalent during

the summer when thermal inversions are most likely to occur. PM levels tend to be highest during the winter months when the meteorological conditions favor the accumulation of localized pollutants. This occurs when relatively low inversion levels trap pollutants near the ground and concentrate the pollution.

The project includes features that would help reduce the potential for air quality impacts, including a construction fleet that is consistent with SJVAPCD regulations, and incorporation of instant water heaters and solar-ready electrical into each residence.

Would the project:

a) **Conflict with or obstruct implementation of the applicable air quality plan?**

Less than significant impact. The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The District's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) does not provide specific guidance on analyzing conformity with the District's Air Quality Plans (AQPs). Therefore, this ISMND proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District for Regional and Local Air Pollutants.
2. Will the project conform to the assumptions in the AQPs?
3. Will the project comply with applicable control measures in the AQPs?

The use of the criteria listed above is a standard approach for CEQA analysis of projects in the District's jurisdiction, as well as within other air districts, for the following reasons:

- Significant contribution to existing or new exceedances of the air quality standards would be inconsistent with the goal of attaining the air quality standards.
- AQP emissions inventories and attainment modeling are based on growth assumptions for the area within the air district's jurisdiction.
- AQPs rely on a set of air district-initiated control measures as well as implementation of federal and state measures to reduce emissions within their jurisdictions, with the goal of attaining the air quality standards.

AQPs are plans for reaching attainment of air quality standards. The assumptions, inputs, and control measures are analyzed to determine if the Air Basin can reach attainment for the ambient air quality standards. In order to show attainment of the standards, the District analyzes the growth projections in the valley, contributing factors in air pollutant emissions and formations, and existing and future emissions controls. The District then formulates a control strategy to reach attainment.

Contribution to Air Quality Violations

A measure of determining if the project is consistent with the AQPs is if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs. Because of the region's nonattainment status for ozone, PM_{2.5}, and PM₁₀, if project-generated emissions of either of the ozone precursor pollutants (ROG and NO_x), PM₁₀, or PM_{2.5} would exceed the District's significance thresholds, then the project would be considered to conflict with the AQPs.

As discussed in checklist question 3.b) below, emissions of ROG, NO_x, PM₁₀, and PM_{2.5} associated with the construction and operation of the project would not exceed the District's significance thresholds. As shown in checklist question 3.b), the project would not result in CO hotspots that would violate CO standards. Therefore, the project would not contribute to air quality violations and impacts would be less than significant.

Consistency with Assumptions in AQPs

The primary way of determining consistency with the AQP's assumptions is to determine consistency with the applicable General Plan to ensure that the project's population density and land use are consistent with the growth assumptions used in the AQPs for the Air Basin.

As required by California law, city and county General Plans contain a Land Use Element that details the types and quantities of land uses that the city or county estimates will be needed for future growth, and designates locations for land uses to regulate growth. The Fresno Council of Governments (Fresno COG) uses the growth projections and land use information in adopted general plans, among other sources, to estimate future average daily trips and then vehicle miles traveled (VMT), which are then provided to the District to estimate future emissions in the AQPs. Existing and future pollutant emissions computed in the AQP are based on land uses from area general plans. AQPs detail the control measures and emission reductions required for reaching attainment of the air standards based on these growth and emission estimates.

The applicable General Plan for the project is the City of Sanger General Plan, which was adopted in 2003, prior to the District's adoption of the applicable AQPs. The General Plan is amended up to four times per year to allow changes to the planned land use and other plan elements as needed to accommodate development proposals that are not currently consistent with the General Plan. The changes in land use are then incorporated into the modeling assumptions of the regional transportation model on a periodic basis. Therefore, if the project's population growth and VMT are consistent with the General Plan, then the project is automatically consistent with the growth assumptions used in the applicable AQPs.

The project is currently zoned AE-20 (Exclusive Agricultural, 20 acre-minimum) by Fresno County. No Fresno County General Plan designation is applied to the site because it is within the Sanger SOI. The City of Sanger General Plan designates the project site "Residential-Medium Low" and the Sanger Zoning Ordinance pre-zones the majority of the project site "R-1-6" (which requires a lot area of 6,000 square feet minimum), and pre-zones approximately 4.5 acres as "RSC" (Recreational, School and Conservation). The project proposes a rezone of the 4.5 acres of land currently pre-

zoned "RSC" to "R-1-6," consistent with the remainder of the project site. Although the project would allow additional development not originally included in the modeling for the AQP (as a result of the rezone of 4.5 acres of "RSC" to "R-1-6"), the most recent Transportation Conformity Finding for Fresno County (Fresno COG 2014) indicates that emission budgets have some capacity to accommodate new development, as discussed in the following. The NO_x emission budget for 2014 is 30 tons per day. The Transportation Conformity Findings identified a total of 27.4 tons of emissions for 2014, indicating that development emitting up to 2.6 tons per day or 949 tons per year can be accommodated. The project's NO_x contribution of 0.0125 ton per day or 4.56 tons per year (the main pollutant of concern) is 0.5 percent of the available emission budget. All other nonattainment pollutants have similar budget availability. Based on the availability of sufficient capacity within the County's Conformity Finding, the project's emission increase is not significant and would it not result in inconsistency with the AQP.

The project would comply with the County's land use designation and proposed zoning designation, as it has a proposed average lot size of 6,678 to 7,344 square feet, which is above the minimum square footage for this zoning designation. The rezone for this parcel is appropriate as it is contiguous to current development and is within the sphere of influence for the City of Sanger. The impact would be less than significant.

Control Measures

The AQP contains a number of control measures, which are enforceable requirements through the adoption of rules and regulations. The project would be required to comply with all of the District's applicable rules and regulations. Therefore, the project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan. Impacts would be less than significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than significant impact. Air pollutant emissions have regional effects and localized effects. This analysis assesses the regional effects of the project's criteria pollutant emissions in comparison to District thresholds of significance for short-term construction activities and long-term operation of the project. Localized emissions from project construction and operation are also assessed using concentration-based thresholds compared with ambient air quality standards or significance thresholds.

The primary pollutants of concern during project construction and operation are ROG, NO_x, PM₁₀, and PM_{2.5}. The District's current GAMAQI, adopted in 2002, contains thresholds for ROG and NO_x; however, pending completion of an update to the GAMAQI, the District recommends using thresholds for PM₁₀, and PM_{2.5} based on Rule 2201 New Source Review offset thresholds.

Ozone is a secondary pollutant that can be formed miles away from the source of emissions through reactions of ROG and NO_x emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. The Air Basin often exceeds the state and national ozone standards. Therefore, if the project emits a substantial quantity of ozone precursors, the project may contribute

to an exceedance of the ozone standard. The Air Basin also exceeds air quality standards for PM₁₀, and PM_{2.5}; therefore, substantial project emissions may contribute to an exceedance for these pollutants. The District has defined substantial contribution of operational and construction emissions through its thresholds of significance as follows:

- 10 tons per year ROG
- 10 tons per year NO_x
- 15 tons per year PM₁₀
- 15 tons per year PM_{2.5}

The Draft 2014 GAMAQI contains significance thresholds for CO (100 tons per year) and sulfur dioxide (SO_x) (27 tons per year). Sulfur dioxide and CO are not included in the regional analysis because these pollutants are in attainment and the District has not issued final significance thresholds for these pollutants. Additionally, as shown in the output files contained in Appendix B, only minor amounts of sulfur dioxide are emitted during construction and operation, well below the SJVAPCD Draft GAMAQI thresholds.

Regional Pollutant Analysis

Construction Emissions

The project involves site preparation, grading, building construction, paving, and architectural coating for 312 single-family dwelling units. The construction of the buildings would occur in four phases over five years. The four phases would consist of 91, 42, 107, and 72 homes, respectively. Analysis of the project was modeled in the California Emissions Estimator Model (CalEEMod) 2013.2.2, with construction beginning in Spring 2016. It was assumed that site preparation and grading for the entire site would occur in the first Phase of construction. Construction emissions associated with the project are shown in Table 2, demonstrating that project emissions are below the significance thresholds and, therefore, are less than significant on a project basis. For detailed modeling files, please refer to Appendix B.

Table 2: Construction Air Pollutant Emissions By Year

Source - Year	Emissions (tons per year)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Phase I (2016)	0.80	6.63	1.21	0.71
Total 2016	0.80	6.63	1.21	0.71
Phase I (2017)	0.43	3.53	0.27	0.23
Total 2017	0.43	3.53	0.27	0.23
Phase I (2018)	1.55	0.12	0.01	0.01
Phase II (2018)	0.94	1.96	0.14	0.12
Phase III (2018)	0.06	0.49	0.04	0.03
Total 2018	2.55	2.57	0.19	0.16

Table 2 (cont.): Construction Air Pollutant Emissions By Year

Source - Year	Emissions (tons per year)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Phase III (2019)	0.33	2.86	0.22	0.17
Total 2019	0.33	2.86	0.22	0.17
Phase III (2020)	1.90	0.84	0.06	0.05
Phase IV (2020)	0.17	1.50	0.12	0.09
Total 2020	2.07	2.34	0.18	0.14
Phase IV (2021)	1.33	1.01	0.05	0.06
Total 2021	1.33	1.01	0.05	0.06
Annual Significance threshold	10	10	15	15
Does any year exceed threshold – significant impact?	No	No	No	No
Notes: ROG = reactive organic gases NO _x = nitrogen oxides PM ₁₀ and PM _{2.5} = particulate matter Source: Appendix B.				

Operational Emissions

Operational emissions occur over the lifetime of the project and are from two main sources: area sources and motor vehicles, or mobile sources. To provide a conservative estimate of operational emissions, the analysis assumed that all homes would be occupied in 2017. If a later year were used, the emissions would be lower because the state and federal government continue to increase efficiency ratings for new vehicles. Therefore, using an earlier year to consider full buildout of the project would provide a worst-case scenario of emissions. Operational emissions are shown in Table 3, demonstrating that emissions would be below the adopted and recommended District significance thresholds and, therefore, would result in less than significant impacts. For further assumptions in estimating the emissions, please refer to Appendix B.

Table 3: 2017 Operational Air Pollutant Emissions for All Phases

Source	Emissions (tons per year)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Area	4.29	0.25	2.22	2.22
Energy	0.05	0.45	0.04	0.04
Mobile	1.96	3.95	3.32	0.93
Total	6.30	4.65	5.58	3.18
Significance threshold	10	10	15	15
Exceed threshold - significant impact?	No	No	No	No

Table 3 (cont.): 2017 Operational Air Pollutant Emissions for All Phases

Source	Emissions (tons per year)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Notes: ROG = reactive organic gases NO _x = nitrogen oxides PM ₁₀ and PM _{2.5} = particulate matter Area source emissions include emissions from natural gas, landscape, and painting. Source: Appendix B.				

Localized Pollutant Analysis

The SJVAPCD has requested that projects analyze the potential to generate or substantially contribute to a localized exceedance of criteria pollutants. A significant impact would result if the change in the NO₂, SO₂, or CO pollutant impacts from the addition of the project plus the background concentrations of these pollutants contributed by other local and regional emission sources exceeds the most restrictive ambient air quality standards. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an existing violation of an air quality standard. Although the Air Basin has not violated the national ambient air quality standards or PM₁₀ in the past 5 years, it has violated the state standard for PM₁₀ during the past several years. The Air Basin also exceeds both the national and state PM_{2.5} air standards. However, the District has not adopted local significance thresholds specifically for either PM₁₀ or PM_{2.5}. For PM₁₀ and PM_{2.5}, a significant impact would occur if the net change in PM₁₀ or PM_{2.5} exceeds the respective SILs.

The District has provided guidance for screening localized impacts in its 2014 Draft Guidance document that establishes a screening threshold of 100 pounds per day of any criteria pollutant. If a project exceeds 100 pounds per day of any criteria pollutant then ambient air quality modeling would be necessary. If the project does not exceed 100 pounds per day of any criteria pollutant, then it can be assumed that it would not cause a violation of an ambient air quality standard.

Construction: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO₂

Local construction impacts would be short-term in nature lasting only through construction. Because of the short duration and limited amount of construction anticipated for the project, application of best management practices (such as compliance with Regulation VIII Fugitive Dust Prohibitions to minimize construction emissions), localized construction concentrations are considered less than significant. It should also be noted that the on-site construction emissions would be less than 100 pounds per day for each of the criteria pollutants, as shown in Table 4 below. Therefore, based on the District's 2014 Draft Guidance document, the construction emissions would not cause an ambient air quality standard violation. Impacts would be less than significant.

Operation: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO₂

Localized impacts could occur in areas with a single large source of emissions such as a power plant or with multiple sources concentrated in a small area such as a distribution center. Operational

modeling of on-site emissions for the project indicates that the project would not exceed 100 pounds per day for each of the criteria pollutants, as shown in Table 4. Therefore, based on the District's 2014 Draft Guidance document, the operational emissions would not cause an ambient air quality standard violation. Impacts would be less than significant.

Table 4: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO₂ for Construction and Operation

Source	Emissions (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Construction ¹	74.81	49.14	12.55	6.94
Operation ²	2.27	26.86	0.53	0.53
Significance threshold	100	100	100	100
Exceed threshold - significant impact?	No	No	No	No
<p>Notes:</p> <p>NO_x = nitrogen oxides CO = carbon monoxide PM₁₀ and PM_{2.5} = particulate matter</p> <p>¹. Daily construction emissions reflect emissions during grading in 2016 for Phase I of the project. These are the highest daily emissions for the project.</p> <p>². Operational emissions are shown as "mitigated" emissions in CalEEMod because regulatory measures and design features are shown as mitigation.</p> <p>Emissions for construction and operation are on-site emissions. Mobile source emissions from operations are excluded because they would occur offsite.</p> <p>Source: Appendix B.</p>				

CO Hotspot

A carbon monoxide (CO) hotspot analysis is the appropriate tool to determine if project emissions of CO during operation would exceed ambient air quality standards. The main source of air pollutant emissions during operation are from offsite motor vehicles traveling on the roads surrounding the project site.

Project emissions may be considered significant if a CO hotspot intersection analysis determines that project-generated emissions cause a localized violation of the state CO 1-hour standard of 20 parts per million (ppm), state CO 8-hour standard of 9 ppm, federal CO 1-hour standard of 35 ppm, or federal CO 8-hour standard of 9 ppm.

Because increased CO concentrations are usually associated with roadways that are congested and with heavy traffic volume, the SJVAPCD has established that preliminary screening can be used to determine with fair certainty that the effect a project has on any given intersection would not cause a potential CO hotspot. Therefore, the SJVAPCD has established in both its 2002 and Draft 2014 GAMAQI that if all project-affected intersections are negative for both of the following criteria, then the project can be said to have no potential to create a violation of the CO standard, which are 20 ppm (1-hour California standard) and 9 ppm (8-hour standard), respectively.

- A traffic study for the project indicates that the Level of Service (LOS) on one or more streets or at one or more intersections in the project vicinity will be reduced to LOS E or F; or
- A traffic study indicates that the project will substantially worsen an already existing LOS F on one or more streets or at one or more intersections in the project vicinity.

It should be noted that the California CO standards are more stringent than the federal standards.

If either of the criteria can be associated with any intersection affected by the project, a CO Protocol Analysis must be prepared to determine significance.

The Traffic Impact Study prepared by Peters Engineering for the project showed that the following intersections would meet the criteria established by the SJVAPCD for a potential CO hotspot, and therefore should be further analyzed. However, as discussed below, CO hotspots are not anticipated as a result of traffic-generated emissions by the project in combination with other anticipated development in the area.

- McCall/North – Near-Term with Project Scenario
- McCall/Jensen – 2035 with Project Scenario
- Bethel/9th – 2035 with Project Scenario
- McCall/Annadale – 2035 with Project Scenario
- Del Rey/Annadale – 2035 with Project Scenario
- McCall/North – 2035 with Project Scenario
- Bethel/North – 2035 with Project Scenario
- Academy/Central – 2035 with Project Scenario

CALINE4 is a dispersion model used to estimate the concentration of CO along roadways and intersections and is recommended by the SJVAPCD for estimating potential CO hotspots. Using the CALINE4 model, potential CO hotspots were analyzed for the Near-Term with Project Scenario intersection and at the three highest-delay intersections for 2035 with Project Scenario meeting the SJVAPCD screening criteria. If the highest-delay intersections would not exceed the CO standards, the other intersections with less delay would also not violate the standards. Because the greatest CO concentration potential exists at the intersections, the roadway segments were not evaluated. If the intersections would not violate the CO standard, then the roadway segments, which experience greater dispersion and decreased CO concentration levels, would also not violate the CO standard.

As shown in Table 5, the estimated 1-hour and 8-hour average CO concentrations in the near term and at buildout in combination with background concentrations are below the state and national ambient air quality standards. No CO hotspots are anticipated as a result of traffic-generated emissions by the project in combination with other anticipated development in the area. Therefore, the mobile emissions of CO from the project are not anticipated to contribute substantially to an existing or projected air quality violation of CO. Impacts would be less than significant.

Table 5: Carbon Monoxide Concentrations at Intersections

Intersection	Scenario	CO Concentrations (ppm)		Significant Impact? ³
		1 Hour ¹	8 Hour ²	
McCall/North	Near-Term with Project	2.9	2.0	No
McCall/Jensen	2035 with Project	3.5	2.4	No
Bethel/9th	2035 with Project	3.1	2.2	No
Academy/Central	2035 with Project	3.1	2.2	No
State Thresholds		20 ppm	9 ppm	No
Federal Thresholds		35 ppm	9 ppm	No
<p>Notes:</p> <p>¹ CALINE4 output (see Appendix B for model output) plus the highest 1-hour background concentration during the past 3 years of 2.47 ppm [From the SJVAPCD –Drummond Monitoring Station in Fresno (closest monitoring station to the project site, 8.8 miles northeast)]</p> <p>² The 8-hour Long Term With Project caused increment was calculated by multiplying the 1-hour CALINE4 output by 0.7 (persistence factor), then adding the highest 8-hour background concentration during the past 3 years of 1.73 ppm [From the SJVAPCD –Drummond Monitoring Station in Fresno (closest monitoring station to the project site, 8.8 miles northeast)]</p> <p>³ Comparison of the 1-hour concentration to the state standard of 20 ppm and the 8-hour concentration to the state/national standard of 9 ppm.</p> <p>Source: FirstCarbon Solutions, 2014, Appendix B.</p>				

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

Less than significant impact. To result in a less than significant impact, the following criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants must be below the District's regional significance thresholds. This is an approach recommended by the District in its GAMAQI.
2. Summary of projections: the project must be consistent with current air AQPs including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
3. Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. This approach correlates the significance of the regional analysis with health effects, consistent with the court decision, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-20.

Step 1: Regional Analysis

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project

exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The Air Basin is in nonattainment for PM₁₀, PM_{2.5}, and ozone. Therefore, if the project exceeds the regional thresholds for PM₁₀, or PM_{2.5}, then it contributes to a cumulatively considerable impact for those pollutants. If the project exceeds the regional threshold for NO_x or ROG, then it follows that the project would contribute to a cumulatively considerable impact for ozone.

Regional emissions include those generated from all onsite and offsite activities. Regional significance thresholds have been established by the District because emissions from projects in the Air Basin can potentially contribute to the existing emission burden and possibly affect the attainment and maintenance of ambient air quality standards. Projects within the Air Basin region with regional emissions in excess of any of the thresholds presented previously are considered to have a significant regional air quality impact.

The criteria pollutant emissions analysis, as shown in checklist question 3.b), assessed whether the project would exceed the District's thresholds of significance. As shown in Table 2 and Table 3, criteria pollutant emissions would not exceed any threshold of significance during project construction or operation. Therefore, the combination of unmitigated project emissions with the criteria pollutants from other sources within the Air Basin would not cumulatively contribute to a significant impact according to this criterion.

Step 2: Plan Approach

Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts is based on a summary of projections analysis. This analysis considers the current CEQA Guidelines, which includes the recent amendments approved by the Natural Resources Agency and effective on March 18, 2010. The Air Basin is in nonattainment for ozone and particulate matter (PM₁₀ and PM_{2.5}), which means that concentrations of these pollutants currently exceed the applicable ambient air quality standards.

Under the amended CEQA Guidelines, cumulative impacts may be analyzed using other plans that evaluate relevant cumulative effects. The geographic scope for cumulative criteria pollution from air quality impacts is the Air Basin, because that is the area in which the air pollutants generated by the sources within the Air Basin circulate and are often trapped. The District is required to prepare and maintain air quality attainment plans and a State Implementation Plan to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the

District does not have direct authority over land use decisions, it is recognized that changes in land use and circulation planning would help the Air Basin achieve clean air mandates. The District evaluated emissions from land uses and transportation in the entire Air Basin when it developed its attainment plans.

In accordance with CEQA Guidelines Section 15064, subdivision (h)(3), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously approved plan or mitigation program.

The 2007 8-Hour Ozone Plan contains measures to achieve reductions in emissions of ozone precursors and sets plans towards attainment of ambient ozone standards by 2023. The 2012 PM_{2.5} Plan requires fewer reductions than the Ozone Plan, so the Ozone Plan is considered the applicable plan. As discussed in question a), the project is consistent with all applicable control measures in the air quality attainment plans. The project would be required to comply with any District rules and regulations that may pertain to implementation of the AQPs. Therefore, impacts would be less than significant with regard to compliance with control measures and regulations.

Step 3: Cumulative Health Impacts

The Air Basin is in nonattainment for ozone, PM₁₀, and PM_{2.5}, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children, the elderly, and the infirm). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects.

The regional analysis of construction and operational emissions, as indicated in checklist question 3.b) indicates that the project would not exceed the District's significance thresholds and the project is consistent with the applicable AQPs. Therefore, the project would not result in significant cumulative health impacts from nonattainment pollutants and impacts would be less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact. Sensitive receptors are those who are sensitive to air pollution and include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. The District considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools.

The closest sensitive receptors are residences directly adjacent to the eastern fence line of the project site.

Impacts to Onsite Workers

A variety of state and national programs protect workers from safety hazards, including high air pollutant concentrations (California OSHA and CDC 2012). Onsite workers are not required to be

addressed through the health risk assessment process. A document published by the California Air Pollution Control Officers Association (CAPCOA 2009), Health Risk Assessments for Proposed Land Use Projects, indicates that onsite receptors are included in risk assessments if they are persons not employed by the project. Persons not employed by the project would not remain onsite for any significant period. Therefore, a health risk assessment for onsite workers is not required or recommended.

Construction: ROG

During the application of architectural coatings (painting), ROG is emitted. The amount emitted is dependent on the amount of ROG in the paint. ROG emissions are typically an indoor air quality health hazard concern and not an outdoor air quality health hazard concern. Therefore, exposure of ROG during architectural coatings would be a less than significant health impact.

Three types of asphalt are typically used in paving: asphalt cements, cutback asphalts, and emulsified asphalts. However, District Rule 4641 prohibits the use of the following types of asphalt: rapid cure cutback asphalt; medium cure cutback asphalt; slow cure asphalt that contains more than one-half (0.5) percent of organic compounds that evaporate at 500 degrees Fahrenheit (°F) or lower; and emulsified asphalt containing organic compounds, in excess of 3 percent by volume, that evaporate at 500°F or lower. An exception to this is medium cure asphalt when the National Weather Service official forecast of the high temperature for the 24-hour period following application is below 50°F.

The acute (short-term) health effects from worker direct exposure to asphalt fumes include irritation of the eyes, nose, and throat. Other effects include respiratory tract symptoms and pulmonary function changes. The studies were based on occupational exposure of fumes. The restrictions that are placed on asphalt in the San Joaquin Valley reduce ROG emissions from asphalt and exposure. Therefore, the impact to nearby sensitive receptors from ROG during construction would be less than significant.

Operation: ROG

During operation, ROG would be emitted primarily from motor vehicles. Direct exposure to ROG from project motor vehicles would not result in health effects, because the ROG would be distributed across miles and miles of roadway and in the air. The concentrations would not be great enough to result in direct health effects. Impacts would be less than significant.

Construction: NO_x, PM₁₀, PM_{2.5}

As discussed in checklist question 3.b), emissions during construction would not exceed the significance thresholds and would not be expected to result in concentrations that would exceed ambient standards or contribute substantially to an existing exceedance of an ambient air quality standard. Impacts would be less than significant.

Operation: PM₁₀, PM_{2.5}, CO, NO₂

As discussed in checklist question 3.b), localized concentrations of PM₁₀, PM_{2.5}, CO, and NO₂ would not exceed the ambient air quality standards. Residential land use is an insignificant source of these

pollutants except for projects that allow woodburning devices that emit PM₁₀, PM_{2.5} in wood smoke. The project would include only natural gas-fueled fireplaces and inserts, which are insignificant sources of PM_{2.5} and PM₁₀. Therefore, the project would not expose sensitive receptors to substantial criteria air pollutant concentrations during operation. Impacts would be less than significant.

Construction: Toxic Air Contaminants

Although construction of the project would involve the use of diesel-fueled vehicles, construction risks were not analyzed because of the short duration of the construction phase. While operational emissions are ongoing, the construction phase emissions are short-term. The California Office of Environmental Health Hazard Assessment (OEHHA) provides exposure variants for 9-, 30-, and 70-year exposures in its Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003). These exposures are chosen to coincide with the EPA's estimates of the average (9 years) and high-end estimates (30 years) of residence time, and a typical lifetime (70 years). OEHHA states its support for the use of cancer potency factors for estimating cancer risk for these exposure durations. However, as the exposure duration decreases, the uncertainties introduced by applying cancer potency factors derived from very-long-term studies increases. Short-term high exposures are not necessarily equivalent to longer-term lower exposures even when the total dose is the same. OEHHA therefore does not support the use of current cancer potency factor to evaluate cancer risk for exposures of less than 9 years (refer to page 8-4 of OEHHA 2003).

In addition, guidance published by the California Air Pollution Control Officers Association (CAPCOA 2009), Health Risk Assessments for Proposed Land Use Projects, does not include guidance for assessing health risks from construction projects; risks near construction projects are expected to be included in a later guidance document when the toxic emissions from construction activities are better understood.

Construction phase risks would be considered acute health risks as opposed to cancer risks, which are long-term. OEHHA has yet to define acute risk factors for diesel particulates that would allow the calculation of a hazards risk index; thus, evaluation of this impact would be speculative and no further discussion is necessary.

Operation: Toxic Air Contaminants

The ARB Air Quality and Land Use Handbook contains recommendations that will "help keep California's children and other vulnerable populations out of harm's way with respect to nearby sources of air pollution" (ARB 2005), including recommendations for distances between sensitive receptors and certain land uses. These recommendations are assessed as follows.

- Heavily traveled roads. ARB recommends avoiding new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. Epidemiological studies indicate that the distance from the roadway and truck traffic densities were key factors in the correlation of health effects, particularly in children. The project is adjacent to North Avenue, which is estimated to currently have 3,220 vehicles per day. The project is approximately 1,280 feet west from South Bethel Avenue, which is estimated to currently have 6,340 vehicles per day (California Environmental Health Tracking

Program 2014). The California Environmental Health Tracking Program does not have traffic volumes for Annadale Avenue; however, it should be noted that the volumes would be less than Jensen Avenue (approximately 2,670 feet north), which was reported to have 31,000 vehicles per day.

- Distribution centers. ARB also recommends avoiding siting new sensitive land uses within 1,000 feet of a distribution center. The closest existing or proposed distribution center to the project is located more than 1.80 miles from the project.
- Fueling stations. ARB recommends avoiding new sensitive land uses within 300 feet of a large fueling station (a facility with a throughput of 3.6 million gallons per year or greater). ARB recommends a 50-foot separation for typical gas dispensing facilities. The nearest gas station is approximately 0.56 mile from the project site.
- Dry cleaning operations. ARB recommends avoiding siting new sensitive land uses within 300 feet of any dry cleaning operation that uses perchloroethylene. For operations with two or more machines, ARB recommends a buffer of 500 feet. For operations with three or more machines, ARB recommends consultation with the local air district. The nearest dry cleaning operation is approximately 6.17 miles from the project site.

Because the project is located beyond the recommended distances from the above land uses, impacts would be less than significant.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus known as *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley fever. By geographic region, hospitalizations for Valley fever in the San Joaquin Valley increased from 230 (6.9 per 100,000 population) in 2000 to 701 (17.7 per 100,000 population) in 2007. Within the region, Kern County reported the highest hospitalization rates, increasing from 121 (18.2 per 100,000 population) in 2000 to 285 (34.9 per 100,000 population) in 2007, and peaking in 2005 at 353 hospitalizations (45.8 per 100,000 population). The Centers for Disease Control and Prevention indicates that 752 of the 8,657 persons (8.7 percent) hospitalized in California between 2000 and 2007 for Valley fever died (CDC 2009).

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:

- 1) Rodent burrows (often a favorable site for *C. immitis*, perhaps because temperatures are more moderate and humidity higher than on the ground surface)
- 2) Old (prehistoric) Indian campsites near fire pits
- 3) Areas with sparse vegetation and alkaline soils
- 4) Areas with high salinity soils
- 5) Areas adjacent to arroyos (where residual moisture may be available)
- 6) Packrat middens
- 7) Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils
- 8) Sandy well aerated soil with relatively high water holding capacities

Sites within endemic areas less favorable for the occurrence of *C. immitis* include:

- 1) Cultivated fields
- 2) Heavily vegetated areas (e.g. grassy lawns)
- 3) Higher elevations (above 7,000 feet)
- 4) Areas where commercial fertilizers (e.g. ammonium sulfate) have been applied
- 5) Areas that are continually wet
- 6) Paved (asphalt or concrete) or oiled areas
- 7) Soils containing abundant microorganisms
- 8) Heavily urbanized areas where there is little undisturbed virgin soil (USGS 2000).

The project site is in a suburban area that is surrounded by land that is either developed or cultivated. This is an area cited above that would lead to a low probability of having *C. immitis* growth sites and exposure from disturbed soil.

Construction activities would generate fugitive dust that could contain *C. immitis* spores. The project would minimize the generation of fugitive dust during construction activities by complying with the District's Regulation VIII, which regulates the generation of fugitive dust. Therefore, this regulation would reduce valley fever impacts to less than significant.

During operations, dust emissions are anticipated to be negligible, because most of the project area would be occupied by buildings, pavement, and landscaped areas. This condition would preclude the possibility of the project from generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

Naturally Occurring Asbestos

According to a map of areas where naturally occurring asbestos in California are likely to occur (California Department of Conservation 2000), there are no such areas in the project vicinity.

Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos. Impacts would be less than significant.

e) **Create objectionable odors affecting a substantial number of people?**

Less than significant impact. According to the District's 2002 GAMAQI, analysis of potential odor impacts should be conducted for the following two situations:

- **Generators:** projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate, and
- **Receivers:** residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.

The District has determined the common land use types that are known to produce odors in the Air Basin. These types, and screening distances, are shown in Table 6.

Table 6: Screening Levels for Potential Odor Sources

Odor Generator	Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Compositing Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Source: San Joaquin Valley Air Pollution Control District, 2002.	

If the project were to result in sensitive receptors being located closer to an odor generator in the list in Table 6 than the recommended distances, a more detailed analysis including a review of District odor complaint records is recommended.

Project Analysis

Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roasters, asphalt batch plants, and rendering plants. The project would not engage in any of these activities. Therefore, the project would not be considered to have the potential to expose persons to substantial sources of objectionable odors.

During construction, the various diesel-powered vehicles and equipment in use onsite would create localized odors. These odors would be temporary and would not likely be noticeable for extended periods of time beyond the project's site boundaries. The potential for diesel odor impacts is therefore less than significant.

There are no solid waste facilities or other major odor generating sources (as listed in Table 6) within 1 mile of the project site, and no petroleum refineries or wastewater treatment facilities exist within 2 miles of the site. In addition, the nearest body shop, which may be a source of paint/coating emissions, is located 1.63 miles northeast of the project site, which is beyond the 1-mile threshold for painting and coating operations. Therefore, surrounding uses would not cause substantial odor impacts to the project. Impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. Biological Resources <i>Would the project:</i>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

Would the project:

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

Less than significant impact with mitigation incorporated. Although the project site is located directly adjacent to an already developed residential area, special-status species have the potential to occur onsite. Special-status species are those species listed as threatened or endangered by the federal or state Endangered Species Acts. In addition, CEQA requires that impacts to “locally rare” species also be addressed. For the purposes of this analysis, a list of species of special concern with the potential to occur in the project area was identified based on listing in the following information resources:

- California Natural Diversity Database (CNDDDB) (CDFG 2014a; CDFG 2014b)
- United States Fish and Wildlife Service (USFWS) online database (USFWS 2014a)
- USFWS Critical Habitat Mapper (USFWS 2014b)
- California Native Plant Society (CNPS) online database (CNPS 2014)

The literature search identified special-status plant and wildlife species that have been previously documented within the project region. However, habitat for special-status species was absent from the project site.

Plants

The project site supports one habitat type, consisting of ruderal/disturbed that almost lacks vegetation entirely due to recent tilling. Weedy grasses species such as rip gut (*Bromus diandrus*) and jimson weed (*Datura stramonium*) were identified around ornamental grapevines.

Because of the highly disturbed nature and lack of suitable habitat, no special-status plant species have the potential to occur; therefore, no special-status plant species would be impacted by the proposed project.

Wildlife

The project site generally lacks vegetation or prey opportunities for special-status wildlife species. Common mammals that might be expected to occur in this habitat include California ground squirrel (*Spermophilus beecheyi*), coyote (*Canis latrans*), black-tailed jackrabbit (*Lepus californicus*), and opossum (*Didelphis virginiana*). Reptiles such as the gopher snake (*Pituophis catenifer catenifer*) and western fence lizard (*Sceloporus occidentalis*) may be present.

With respect to special-status wildlife, review of the CNDDDB revealed special-status species that have been previously documented within the project vicinity (see Exhibit 3 of Appendix C). Despite occurrences of these species within the project vicinity, suitable habitat does not occur within the project site to support these species. Based on the highly disturbed nature of the project site, it is concluded that no special-status wildlife species have the potential to occur; therefore, no special-status wildlife species would be impacted by the proposed project.

Although the site does not provide foraging opportunities for birds (lack of vegetation), several trees occur within and adjacent to the project site that could provide nesting habitat for birds protected by the MBTA. As such, MM BIO-1 requires pre-construction nesting bird surveys and subsequent identified actions. Burrow holes were observed throughout the project site. These may be habitat for burrowing owl (*Strix occidentalis*). Although habitat for the owl is generally lacking within the project site, MM BIO-2 requires pre-construction burrowing owl surveys and subsequent identified actions. Implementation of these mitigation measures would reduce potential impacts to nesting birds to less than significant.

Mitigation Measure

MM BIO-1 Pre-Construction Nesting Bird Surveys

1. To prevent impacts to Migratory Bird Treaty Act-protected birds and their nests, removal of trees will be limited to only those necessary to construct the project.
2. For trees that must be removed to construct the project, the applicant will target the removal of trees to occur outside the nesting season between September 1st and February 28th. If trees cannot be removed outside the nesting season, pre-construction surveys will be conducted prior to tree removal to verify the absence of active raptor nests within 250 feet (76 meters) of construction activities.
3. If construction or tree removal is proposed during the breeding/nesting season for local avian species (typically March 1st through August 31st), a focused survey for active nests of raptors and migratory birds within and in the vicinity of (no less than 250 feet [76 meters] outside the project boundaries, where possible) the project site shall be conducted by a qualified biologist. Two surveys will be conducted, at least 1 week apart, with the second survey occurring no more than 2 days prior to tree removal. If no active nests are found, tree removal or construction activities may proceed.
4. If an active nest is located during pre-construction surveys, United States Fish and Wildlife Service and/or California Department of Fish and Wildlife (as appropriate) shall be notified regarding the status of the nest. Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or the biologist deems disturbance potential to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100 feet [30 meters] around an active raptor nest and a 50-foot [15-meter] radius around an active migratory bird nest) or alteration of the construction schedule.

No action is necessary if no active nests are found or if construction will occur during the non-breeding season (generally September 1st through February 28th).

MM BIO-2 Pre-Construction Burrowing Owl Survey

The biologist shall perform burrowing owl surveys in order to determine burrow locations within 30 days prior to construction activities using California Department of Fish and Wildlife (CDFW) guidelines. If construction is delayed or suspended for more than 30 days after the survey, the area shall be re-surveyed. Surveys for occupied burrows shall be completed within all construction areas and within 250 feet from the proposed project work areas (where possible and appropriate based on habitat). All occupied burrows will be mapped on an aerial photograph. At least 15 days prior to the expected start of any project-related ground disturbance activities, or restart of activities, the applicant shall provide a burrowing owl survey report and mapping to the CDFW.

Based on the burrowing owl survey results, the following actions shall be taken by the applicant to offset impacts during construction (as outlined in CDFW guidance):

1. During the non-breeding season (September 1 through January 31), no disturbance should occur within approximately 160-foot radius of an occupied burrow. During the nesting season (February 1 through August 31), occupied burrows should not be disturbed within a 300-foot radius unless a qualified biologist approved by the CDFW verifies through non-invasive methods either (1) that the birds have not begun egg-laying and incubation, or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.
2. If owls must be moved away from the disturbance area, passive relocation techniques (as outlined by the CDFW [i.e., use of one-way doors]) should be used rather than trapping. At least one or more weeks will be necessary to accomplish this and to allow the owls to acclimate to alternate burrows.
3. If unpaired owls or paired owls are present in or within 300 feet of areas scheduled for disturbance or degradation (e.g., grading) and nesting is not occurring, owls are to be removed in accordance with CDFW-approved passive relocation protocols. Passive relocation requires the use of one-way exclusion doors, which must remain in place at least 48 hours prior to site disturbance to insure owls have left the burrow prior to construction. An exclusion plan would be required and approval of the plan by CDFW would be necessary.
4. If paired owls are nesting in areas scheduled for disturbance or degradation, nest(s) shall be avoided from February 1st through August 31st by a minimum of a 300-foot buffer or until fledging has occurred. Following fledging, owls may be passively relocated.

If no burrowing owls are detected during the pre-construction survey, no further action is necessary.

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

No impact. The project site is located on land that is disturbed and highly urbanized, and does not constitute a riparian forest. Because the project lacks riparian habitat, the project would not result in adverse effects on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS. No impact would occur.

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

No impact. Wetlands or jurisdictional waters do not exist on the project site. Therefore, the project would not remove, fill, or hydrologically interrupt federally protected wetlands. No impact would occur.

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

Less than significant impact. The project site is situated in a residential area and is surrounded by residential development and agriculture. Urban and wild, native and non-native wildlife such as California ground squirrel (*otospomophilus beecheyi*), black-tailed jackrabbit (*lepus californicus*), raccoon (*procyon lotor*), and opossum (*didelphimorphia*) may be expected to range through the region. As discussed above, the project may have adverse effects on nesting songbirds; however, MM BIO-1 and MM BIO-2 reduce these potential impacts to less than significant.

With the exception of trees that are located within and adjacent to the project site, the site would not be considered an optimal corridor for wildlife movement. There is limited potential for the project to interfere with wildlife species movement or with established wildlife corridors; therefore, impacts would be less than significant.

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

No impact. There are no local policies or ordinances that protect any biological resources within the project site. No impact would occur.

- 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. The City of Sanger does not currently have, nor is it located within, an adopted Habitat Conservation Plan (HCP); Natural Community Conservation Plan (NCCP); or other approved local, regional, or state habitat conservation plan. However, the County of Fresno received a grant to develop an HCP/NCCP to conserve natural and agricultural lands that are at risk from urban

development (USFWS 2008). The plan is currently under development, and it is currently unknown when the plan will be completed. Therefore, the proposed project would not conflict with an *adopted* HCP, NCCP, or other approved local, regional, or state habitat conservation plan. No impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Cultural Resources				
<i>Would the project:</i>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

Record Searches

Information Center Search

A cultural resources record search was conducted on August 13, 2013 at the Southern San Joaquin Valley Information Center, located at California State University, Bakersfield. The purpose of the record search was to determine the extent of previous cultural resources investigations within a 0.50-mile radius of the project area, and whether any prehistoric or historic resources exist within the search radius. Materials reviewed included the current inventories of the National Register of Historic Places (NR), the California Register of Historic Resources (CR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California State Historic Resources Inventory (HRI).

Results of the record search indicate that four previous cultural resources investigations have been conducted within 0.50 mile of the current project area. The nearest of these (Bissonnette 1993) included 80 acres immediately north and northeast of the project area. The record search also indicated that no cultural resources have been recorded previously within the project area or a 0.50-mile radius.

Native American Heritage Commission (NAHC)

A request was sent on August 11, 2014 to the NAHC requesting a search of its Sacred Lands File and a list of interested Native American tribal members who may have additional information about the project area. A response was received from the NAHC on August 22, 2014, indicating that the record search of the Sacred Land File failed to indicate the presence of Native American cultural resources in the immediate project area. A list of 14 Native American tribal members who may have additional

knowledge of the project area was included with the results. These tribal members were sent letters on September 2, 2014, asking for any additional information they might have concerning the project area. On October 13, 2014, a letter was received from the Table Mountain Rancheria indicating that they wanted FCS to contact their Cultural Resource Assistant, Sara L. Barnett. On October 16, 2014, FCS contacted Ms. Barnett via phone and it was agreed that FCS would send her a copy of the Cultural Resource Assessment Report. A copy of the report was sent on October 16th with an invitation for further discussions or clarification, if needed.

Pedestrian Survey

On August 19, 2014, an FCS Senior Project Archaeologist conducted a pedestrian survey of the project area. The survey consisted of 10- to 15-meter transect intervals when possible, and walked in a zigzag pattern to ensure proper coverage. No prehistoric resources or historic resources were discovered during the course of the survey.

Would the project:

- a) **Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?**

No impact. The project area is an open disked field with no indications of structures or buildings. No historical resources were found during the course of the survey within the project area. In addition, there are no existing structures within the project site. Therefore, there would be no change in significant historical resources and no impacts would occur.

- b) **Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?**

Less than significant with mitigation incorporated. The project area does not contain any water resources such as springs, ponds, creeks, or rivers, nor is it located on elevated ground such as a ridge or a knoll, which are typically considered archaeologically sensitive areas. Additionally, no prehistoric resources were found during the course of the survey and, therefore, the project area is considered to have low sensitivity for prehistoric resources.

No prehistoric resources have been recorded within the project area or a 0.50-mile radius of the project area; therefore, archaeological resources would not be expected to be encountered during construction activities associated with the project. However, it is possible that subsurface ground disturbance activities may encounter previously undiscovered archaeological resources. The implementation of MM CUL-1, which requires standard cultural resource construction mitigation, would ensure that impacts to archeological resources would be less than significant.

Mitigation Measure

- MM CUL-1** In the event that archaeological or paleontological resources are discovered during construction, operations shall stop within 50 feet of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The City shall include a standard inadvertent discovery clause in every

construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to, excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Cultural resources could consist of, but are not limited to, stone, bone, wood, or shell artifacts or features, including hearths. Any previously undiscovered resources found during construction within the project area shall be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms, and evaluated for significance in terms of CEQA criteria.

If the resources are determined to be unique historic resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the archaeologist and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in greenspace, parks, or open space, or data recovery excavations.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be curated at a qualified scientific institution approved by the Lead Agency, where they would be afforded long-term preservation to allow future scientific study.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant with mitigation incorporated. No known paleontological resources or unique geologic features exist within the project area. However, it is possible that subsurface excavation activities could encounter previously undiscovered paleontological resources. The implementation of MM CUL-1 would ensure that impacts to unique paleontological resources or unique geologic features would be less than significant.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than significant with mitigation incorporated. No human remains are known to exist within the project area. However, there is always the possibility that subsurface construction activities associated with the project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. However, if human remains are discovered, implementation of MM CUL-2 would reduce this potential impact to a less than significant level.

Mitigation Measure

MM CUL-2 In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines § 15064.5; Health and Safety Code § 7050.5; Public Resources Code § 5097.94 and § 5097.98 must be followed. If during the course of project development there is accidental discovery or recognition of any human remains, the following steps shall be taken: