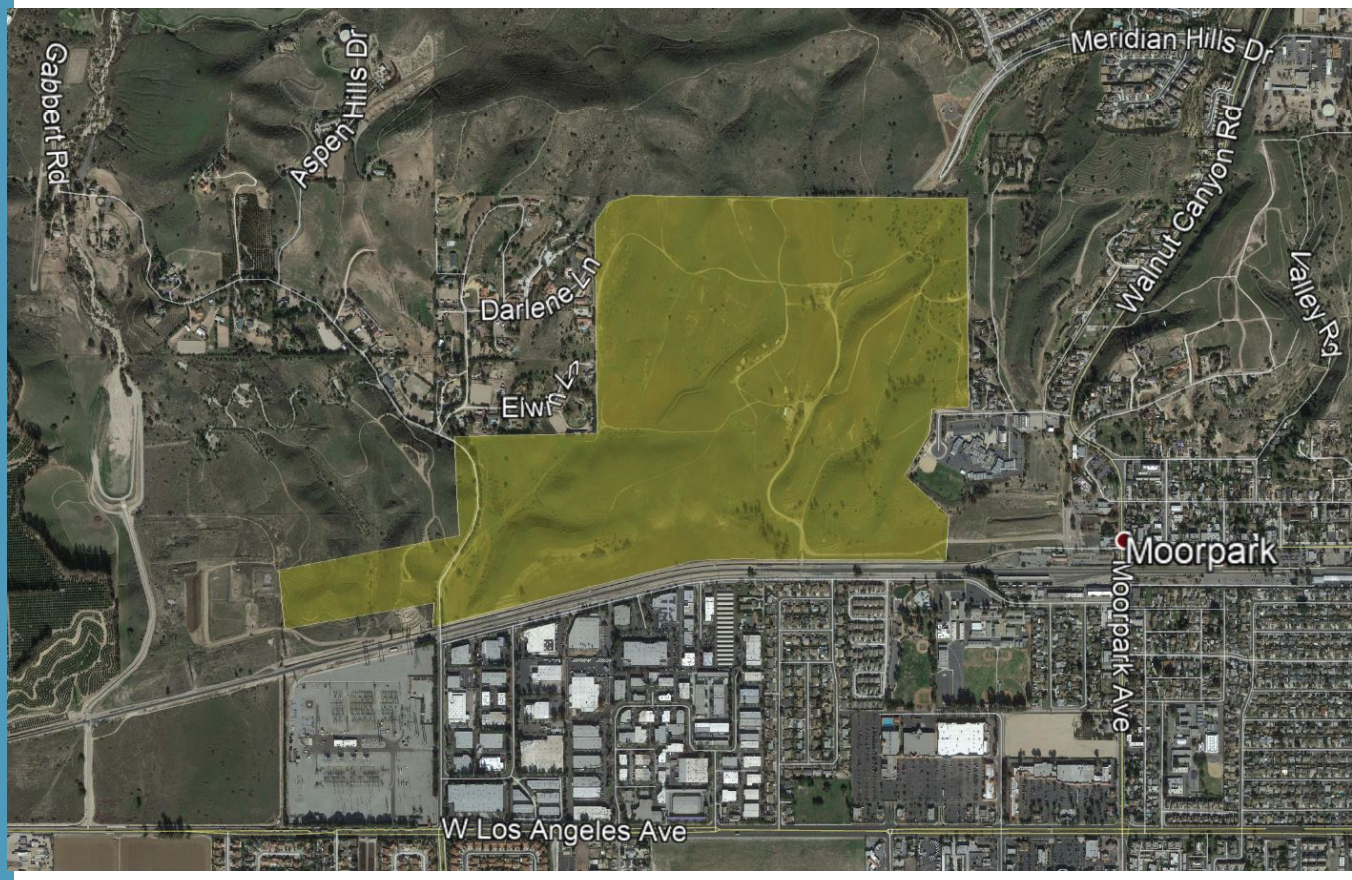
City of Moorpark

Draft Environmental Impact Report for the Proposed Hitch Ranch Specific Plan SCH # 2019070253



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February 2022

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1.0 EXECUTIVE SUMMARY

INTRODUCTION

The Hitch Ranch Specific Plan (SP 2019-01) environmental impact report (EIR) has been prepared to evaluate the potential environmental impacts associated with the Hitch Ranch Specific Plan project (Plan, proposed project). This Draft EIR has been prepared in conformance with the California Environmental Quality Act (CEQA) Statute (California Public Resources Code Section 21000 et seq.), State CEQA Guidelines (Title 14, California Code of Regulations, Chapter 3, Section 15000 et seq.), and the rules, regulations, and procedures for implementation of CEQA as adopted by the City of Moorpark (City). It is intended to serve as an informational document for public agency decision makers and the general public on the objectives and components of the proposed project, significant environmental impacts that may be associated with the planning, construction, and operation of the project, and appropriate feasible mitigation measures and alternatives that may be adopted to reduce or eliminate these significant impacts. The City of Moorpark is the lead agency under CEQA and is responsible for preparing the Hitch Ranch Specific Plan EIR (State Clearinghouse No. 2019070253). The City, as the lead agency, will review and consider the Hitch Ranch Specific Plan EIR in its decision to approve, conditionally approve, revise, or deny the proposed project.

The City of Moorpark, which has the principal responsibility for processing and making a decision on the project, and other public agencies (i.e., responsible and trustee agencies) that may use the EIR in their decision-making or permitting processes will consider the information in this Draft EIR along with comments and responses that are generated during the CEQA process. Responsible and trustee agencies are identified in ***Section 2.0, Project Description****. In addition, the EIR is the primary reference document in the formulation and implementation of a Mitigation Monitoring and Reporting Program for the proposed project.*

In accordance with CEQA, public agencies are required to make findings for each environmental impact of the project identified in the EIR. If the lead agency and responsible and trustee agencies decide that the benefits of the proposed project outweigh any identified unmitigated significant environmental effects, they will be required to adopt a statement of overriding considerations supporting their actions.

The actions involved in the implementation of the proposed project are described in ***Section 2.0, Project Description****. Other agencies that may have discretionary approval over the project, or components thereof, are also described in* ***Section 2.0****.*

1.1 PROJECT LOCATION

Regionally, the project site is located in southeastern Ventura County between the Simi Hills and Little Simi Valley. Locally, the project site is located in the rolling hills north of Poindexter Avenue and west of Moorpark Avenue (State Route 23) and Walnut Canyon Elementary School. Specifically, the site is approximately 277.30 acres, is located approximately 900 feet west of State Route 23, and extends approximately 1,400 feet west of Gabbert Road. The regional location map (**Figure 1.0-1, Regional Location**) and site vicinity map (**Figure 1.0-2, Local Vicinity Map**) illustrate the project site from both a regional and local context.

1.2 PROJECT DESCRIPTION

From a CEQA perspective, the project being analyzed in this EIR is known as the "Hitch Ranch Specific Plan" project including:

- General Plan Amendment No. 2020-01;
- Zone Change No. 2019-01;
- Specific Plan No. 1 / 2019-01
- Tentative Subdivision Map No. 2019-01 for Tract No. 5708; and
- Development Agreement No. 2019-01.

This Draft EIR assesses the potential individual and cumulative impacts that could result from the adoption and implementation of a specific plan, general plan amendment, zone change, tentative tract map, development agreement, and related approvals that would allow the development described in the Hitch Ranch Specific Plan on the Hitch Ranch site. These permits are the first phase of entitlements. The second phase will include final maps and residential planned development permits (RPD)s for each planning area within the specific plan area. This EIR analyzes environmental impacts associated with all phases of the project will apply to all phases of the project.

The Hitch Ranch Specific Plan (and associated actions) as shown in **Figure 1.0-3, Specific Land Use Plan**, illustrates the proposed land plan on the approximately 277-acre project site: **Table 1.0-1, Hitch Ranch Specific Plan Proposed Land Use Data**, provides a summary of the proposed project in terms of the number of dwelling units, acreage of non-residential uses, and facility improvements anticipated within the Specific Plan. A 23.44-acre parcel (City Donation Parcel) within the Specific Plan area would be donated to the City of Moorpark for future development by the City of Moorpark as an affordable

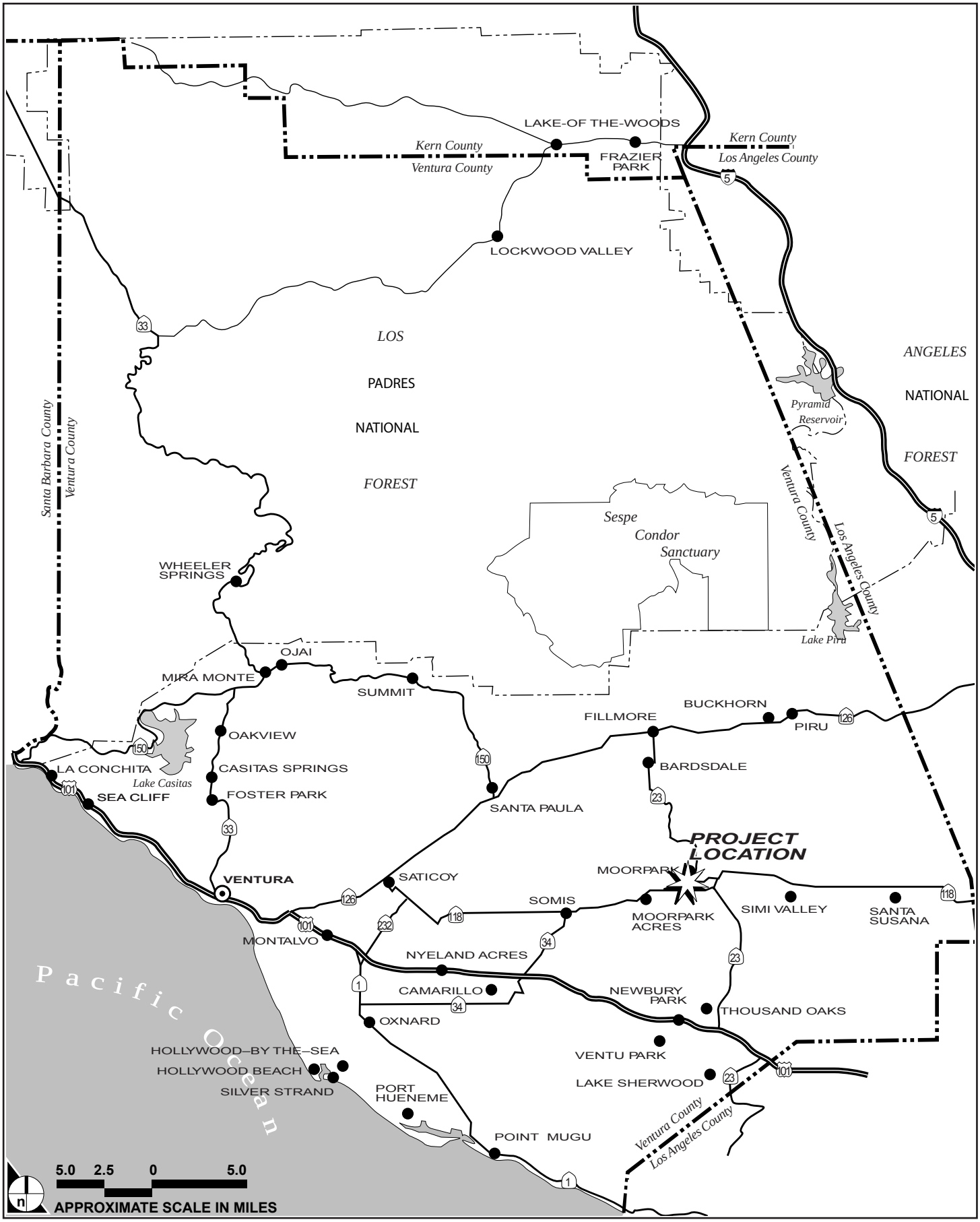
housing site. Additionally, the improved parcel will include an approximately seven-acre detention basin (Basin 3) that will be developed as a passive-use public park.[1]

General Plan Amendment: The General Plan Amendment updates the existing General Plan Land Use map for the Hitch Ranch Specific Plan area (General Plan designation SP-1 Hitch Ranch Specific Plan) by designating the 23.44-acre City Donation Parcel as "Very High Density Residential" (VH), consistent with the City of Moorpark Ordinance Number 421 and Zoning Ordinance Amendment Number 2013-03, adopted September 11, 2013.

The Circulation Element is also amended with the extension of High Street westward to Gabbert Road, the revision of North Hills Parkway from a six-lane arterial roadway to a four-lane arterial roadway and deletion of a traffic signal at North Hills Parkway and Gabbert Road. **Figure 1.0-4 City of Moorpark General Plan Existing and Proposed** illustrates these updates.

Zoning Map Amendment: The Zoning Map Amendment includes designating the proposed project area as the 'Hitch Ranch Specific Plan', retaining the designation of approximately 11 acres owned by Southern California Edison in the southwest corner of the Hitch Ranch Specific Plan as "Agricultural-Exclusive" (AE), consistent with City zoning of adjacent Electrical Transmission Corridor land owned by Southern California Edison. Approximately six acres of the Walnut Canyon School property on the eastern edge of the Hitch Ranch Specific Plan is to remain "Agricultural Exclusive" (AE) consistent with the existing City zoning of this land owned by the Moorpark Unified School District. The 23.44-acre City Donation Parcel will be realigned to the south, and will remain designated "RPD-20U-N-D", consistent with the City of Moorpark Zoning Map and the General Plan Housing Element. **Figure 1.0-5**, **City of Moorpark Zoning Existing and Proposed** illustrates these updates.

1 In this context, "passive" denotes a park that does not have sports fields or other facilities, such as sports courts or restrooms.



SOURCE: Impact Sciences, 2020

FIGURE **1.0-1**

Regional Location

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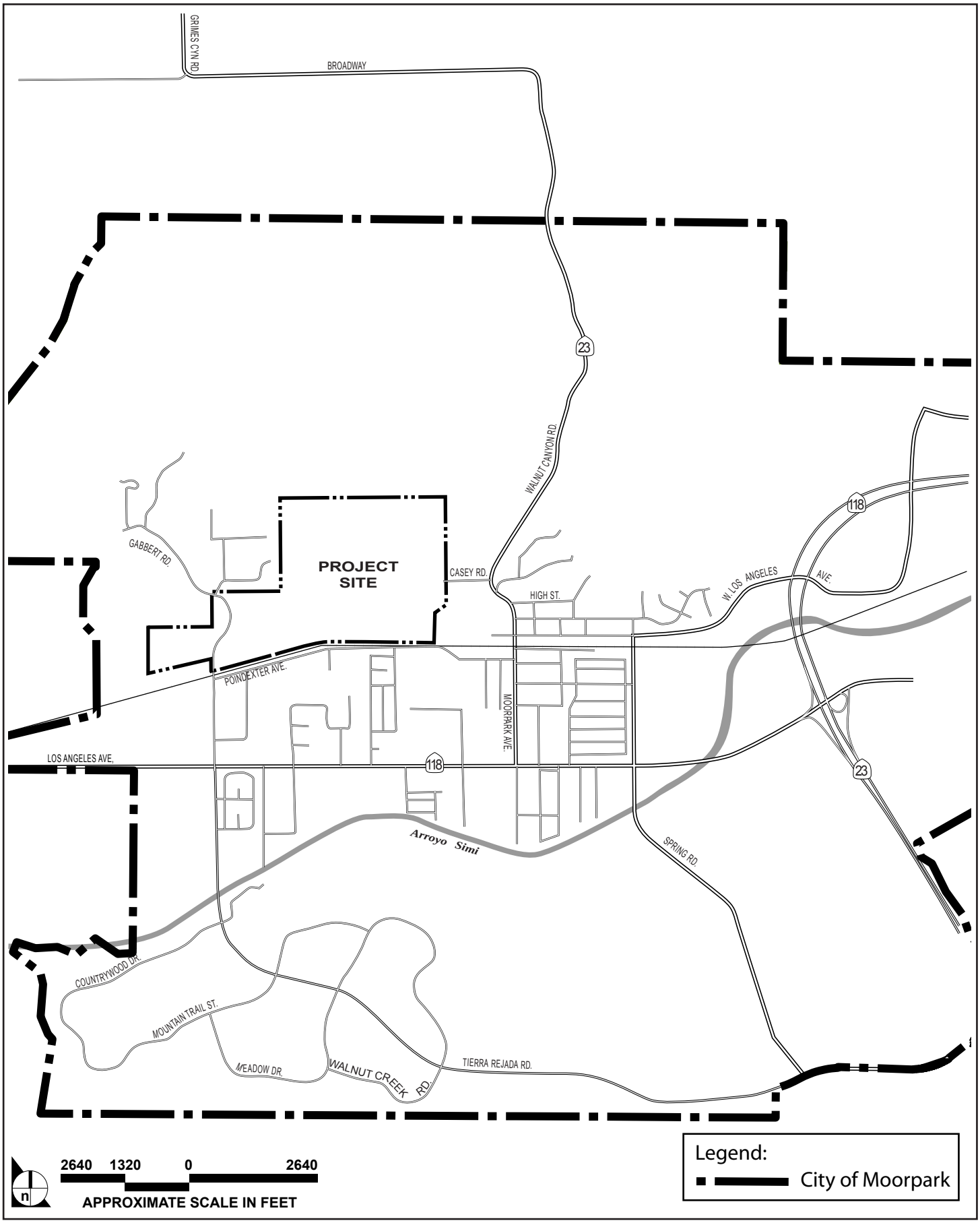

SOURCE: Impact Sciences, 2020

FIGURE **1.0-2**

Project Vicinity

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1318.003•05/2020

HITCH RANCH SPECIFIC PLAN
LAND USE STATISTICAL SUMMARY - January 2022

Area / Description:	Land Use:	Acres:	Dwelling Units	%
Planning Area 1	SFD Units & Private Streets	25.21	79	46
	Natural Open Space	17.33		31
	Manufactured Slopes	12.87		23
	Subtotal	**55.41**	**79**	**100**
Planning Area 1A	Recreation Lot	3.12		51
	Manufactured Slopes	2.96		49
	Subtotal	**6.08**		**100**
Planning Area 2	SFD Units & Private Streets	32.27	188	52
	Natural Open Space	7.40		12
	Manufactured Slopes	18.55		30
	Passive Recreation Lot	1.55		2
	Water Quality Treatment (Lot AE)	2.33		4
	Subtotal	**62.10**	**188**	**100**
Planning Area 3	SFD Units & Private Streets	17.28	160	53
	MFD Units & Private Streets	8.93	93	27
	Open Space	1.60		5
	Manufactured Slopes	4.06		12
	Recreation Lot	0.93		3
	Subtotal	**32.80**	**253**	**100**
Planning Area 4	Multi-family Dwelling Units	8.28	235	72
	Manufactured Slopes	3.39		28
	Subtotal	**11.67**	**235**	**100**
Open Space	Open Space (Lots W-Y)	28.78		100
	Subtotal	**28.78**		**100**
Public Facilities	Public Streets	31.66		56
	VCWPD Easement (Lot AD)	2.68		5
	Detention Basin 2 (LotZ)	5.94		10
	Detention Basin 2A (LotH)	3.67		6
	Detention Basin 2B (Lot V)	6.30		11
	City Park (Lot AE)	6.77		12
	Subtotal	**57.02**		**100**
	TOTAL	**253.86**		
	Market Rate Units		**620**	
	Affordable Apartments		**135**	
Lot 378	City Donation Parcel (Basin 3 Park+7.23 Ac.)	23.44		100
	GRANDTOTAL	**277.30**		

PROJECT BOUNDARY

SOURCE: Comstock Homes, 2022.

FIGURE **1.0-3**

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Specific Plan Proposed Land Use Map

1318.004•01/2022

Table 1.0-1
Hitch Ranch Specific Plan Proposed Land Use Data

Area	Land Use	Acres	Dwelling Units (du)	Percentage of Land Use
Planning Area 1	SFD Units & Private Streets	25.21	79 du	46
(Lots 1-79, A, B, E-G, S1-S4)	Natural Open Space	17.33		31
	Manufactured Slopes	12.87		23
	Subtotal	**55.41**	**79 du**	**100**
Planning Area 1A	Recreation Lot	3.12		51
(Lots C & D)	Manufactured Slopes	2.96		49
	Subtotal	**6.08**		**100**
Planning Area 2	SFD Units & Private Streets	32.27	188 du	52
(Lots 80-267, J-U, AA-AC, S5-S15)	Natural Open Space	7.40		12
	Manufactured Slopes	18.55		30
	Passive Recreation Lot	1.55		2
	Water Quality Treatment (Lot AC)	2.33		4
	Subtotal	**62.10**	**188 du**	**100**
Planning Area 3	SFD Units & Private Streets	17.28	160 du	53
(Lots 268-376, I, AF-AJ, S16-S28)	MFD Units & Private Streets	8.93	93 du	27
	Natural Open Space	1.60		5
	Manufactured Slopes	4.06		12
	Recreation Lot	0.93		3
	Subtotal	**32.80**	**253 du**	**100**
Planning Area 4	Multi-Family Dwelling Units	8.45	235 du	72
(Lot 377)	Manufactured Slopes	3.22		28
	Subtotal	11.67	**235 du**	**100**
Open Space	Open Space	**28.78**		**100**
(Lots W-Y)				
Public Facilities	Public Streets	31.66		56
	VCWPD Easement (Lot AD)	2.68		5
	Detention Basin 2 (Lot Z)	5.94		10
	Detention Basin 2A (Lot H)	3.67		6
	Detention Basin 2B (Lot V)	6.30		11
	City Park (Lot AE)	6.77		12
	Subtotal	**57.02**		**100**
	Project Total	**253.86**	**755 du**	
Lot 378	**City Donation Parcel** (Basin 3 Park = 7.23 acres)	**23.44**		**100**
	Grand Total	**277.30 Acres**	**755 du**	

Note:

- *The number of units within any Planning Area may be refined during the course of subsequent City review and approvals, provided that the total number of units within the Project does not increase beyond the total shown in this table.*

Source: Development Planning Services / Comstock Homes, November 2021

SOURCE: DPS, August 2021.

FIGURE **1.0-4**

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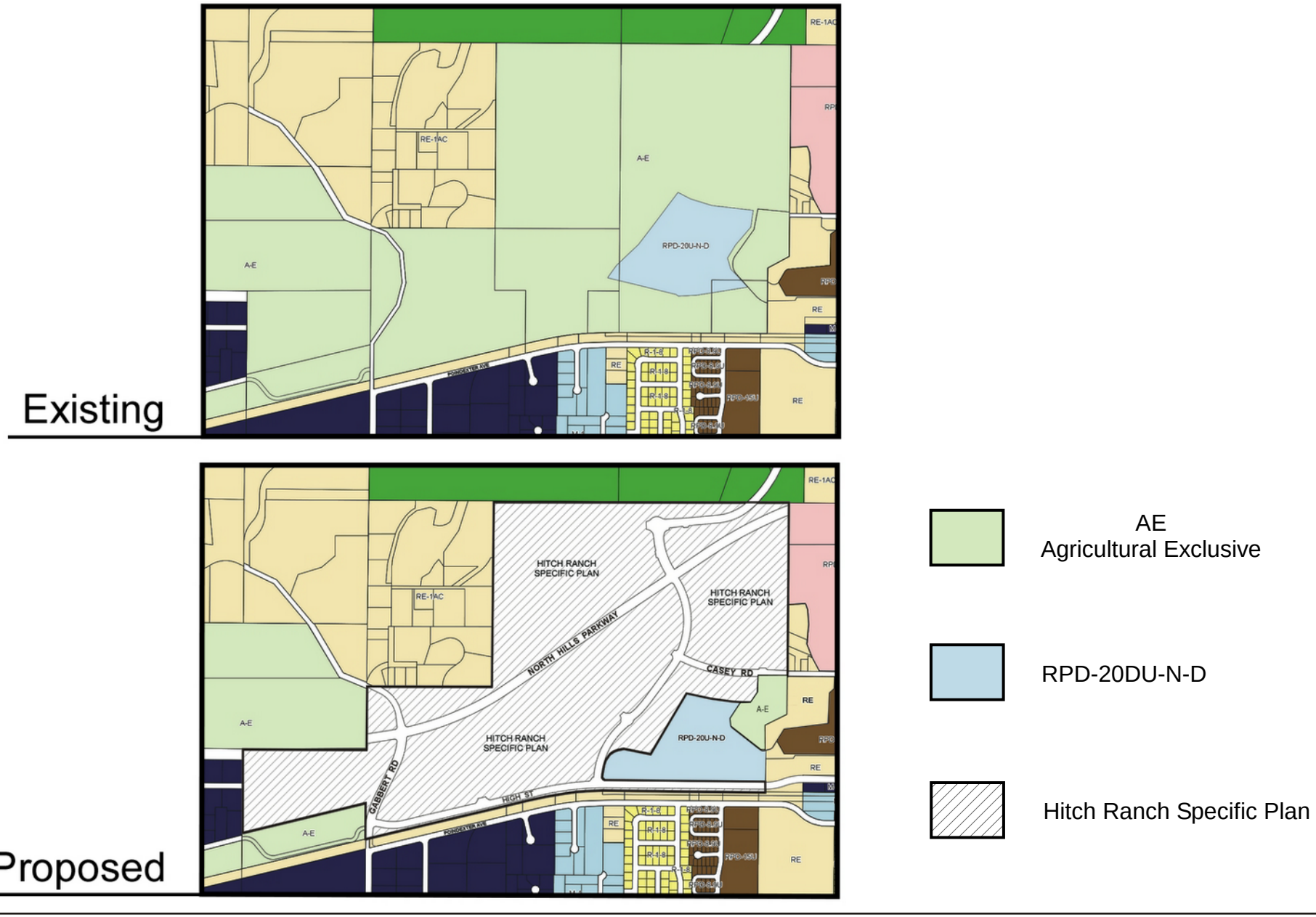
City of Moorpark General Plan Existing and Proposed

1318.003•09/2021



SOURCE: DPS, August 2021.

FIGURE **1.0-5**

IMPACT SCIENCES

City of Moorpark Zoning Existing and Proposed

1318.003•09/2021

1.3 SCOPE OF THE EIR

Pursuant to the California Environmental Act (CEQA), this Draft EIR addresses the potential environmental effects of the proposed Hitch Ranch project, as well as the potential cumulative effects of the proposed Hitch Ranch project plus other reasonably foreseeable developments near the community. This Draft EIR also considers alternatives to the project. The scope of the Draft EIR includes issues identified by the City of Moorpark during the preparation of the Initial Study and Notice of Preparation, as well as environmental issues raised by agencies and the general public in response to the scoping process and the Initial Study and Notice of Preparation, as described below.

1.3.1 Scoping Process

In compliance with the *State CEQA Guidelines*, the City of Moorpark has taken steps to maximize opportunities to participate in the environmental process. An Initial Study and Notice of Preparation (NOP) were distributed on July 10, 2019, to federal, state, regional, and local government agencies, and other interested parties to solicit comments and inform the public of the proposed project. The project was described, potential environmental effects associated with project implementation were identified, and agencies and the public were invited to review and comment on the Initial Study and NOP. The NOP review and comment period closed on August 8, 2019; although letters received later were accepted and evaluated as part of the preparation of this Draft EIR. A scoping meeting to collect oral comments on the scope of the EIR was conducted by the Planning Commission on July 23, 2019, at 7:00 p.m. at City Hall, 799 Moorpark Avenue, Moorpark in the Council Chambers.

The following environmental issues were identified through preparation of the Initial Study and through the scoping process as being potential impacts associated with implementation of the Hitch Ranch Specific Plan project and are addressed in this Draft EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Circulation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Specific impact topics were identified for each of these environmental issues and are discussed in this Draft EIR with respect to existing conditions, potential impacts, the significance of these potential impacts, and proposed mitigation for significant impacts.

Other sections required by CEQA include a discussion of growth inducement, cumulative impacts, significant irreversible environmental changes, and significant environmental effects that cannot be avoided. A discussion of alternatives to the proposed project is also presented in this Draft EIR.

1.3.2 Areas of Concern Known to the Lead Agency

This Draft EIR identifies the areas of environmental concern and environmental issues to be resolved, which are known to the City of Moorpark or were raised by agencies and the public during the scoping process. The City has identified many of these concerns during the preparation of the Initial Study and Notice of Preparation. It should be noted that not all of these issues are related to environmental effects of the Project. The following summarizes the primary areas of concern that have been identified and where they are addressed in this Draft EIR:

- Project compatibility with on-site and surrounding land uses (**Section 3.1, Aesthetics; Section 3.10, Land Use and Planning**)
- Regional and local traffic (**Section 3.15, Transportation; Section 3.10, Land Use and Planning**)
- Provision of adequate infrastructure and services (**Section 3.13, Public Services, Section 3.17, Utilities and Service Systems**)
- Effects on biological resources (**Section 3.3, Biological Resources**)
- Appropriateness/intensity of proposed land uses (**Section 3.10, Land Use and Planning**)
- Effects on groundwater and surface water quality (**Section 3.7, Geology and Soils**; **Section 3.9, Hydrology and Water Quality**)
- Aesthetic changes to the site associated with project implementation (**Section 3.1, Aesthetics**)
- Hillside Ordinance analysis **(Section 3.1, Aesthetics, Section 3.6, Geology and Soils)**
- Concerns regarding exposure to radon (**Section 3.8, Hazards and Hazardous Materials**)

1.3.3 Issues to be Resolved

The issues to be resolved by the City of Moorpark include a decision on the alternatives, which include the proposed project, and whether or how to mitigate the environmental effects of the project. The City will need to determine if the type and intensity of development proposed for the Hitch Ranch Specific Plan site is appropriate for the site.

1.4 SIGNIFICANT ENVIRONMENTAL IMPACTS AND MITIGATION PROGRAM

1.4.1 Definitions of Key Terminology

This EIR identifies those adverse environmental impacts that are expected to be "significant," and corresponding mitigation measures that are proposed to eliminate or reduce those impacts to less-than-significant levels. Where it is determined in this report that a particular impact cannot be mitigated to a less-than-significant level, the EIR identifies that impact as "unavoidable." These particular EIR terms ("significant," "unavoidable," "mitigation") and other key CEQA terminology used in this report are defined as follows:

Significant/Potentially Significant Impact: "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. (CEQA Guidelines, section 15382.) However, an economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant." (CEQA Guidelines, section 15382.)

Significant Cumulative Impact: "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA Guidelines, section 15355.)

Significant Unavoidable Impact: "Unavoidable significant impacts" are defined as those significant adverse environmental impacts for which either no mitigation or only partial mitigation is feasible. If the project is to be approved without imposing an alternative design, the Lead Agency (the City) must include in the record of the project approval a written statement of the specific reasons to support its action--i.e., a "statement of overriding considerations" (CEQA Guidelines, sections 15126.2(b) and 15093(b).)

Significance Criteria: The criteria used in this EIR to determine whether an impact is or is not "significant" are based on (a) CEQA-stipulated "mandatory findings of significance"—i.e., where any of the specific conditions occur under which the Legislature and the Secretary of Resources have determined to constitute a potentially significant effect on the environment, which are listed in CEQA Guidelines section 15065; (b) the relationship of the project effect to the adopted policies, ordinances and standards of the City and of responsible agencies; and/or (c) commonly accepted practice and the professional judgment of the EIR authors and Lead Agency staff.

Mitigation Measures: For each significant impact, the EIR must identify a specific "mitigation" measure or set of measures capable of "(a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; (d} reducing or eliminating the impact over time by preservation or maintenance operations during the life of the action; or (e) compensating for the impact by replacing or providing substitute resources or environments." (CEQA Guidelines, section 15370.)

1.4.2 Summary Table

Table 1.0-2 summarizes each potentially significant environmental effect of the proposed project, the recommended mitigation measures, or alternatives that would reduce or avoid the effect and the level of significance after mitigation. The reader is referred to the full text of this Draft EIR for a detailed description of the environmental effects of the proposed project and feasible mitigation measures.

1.4.3 Potential Impacts Not Found To Be Significant

In accordance with *State CEQA Guidelines* Section 15128, this Draft EIR identifies the possible significant effects that were determined not to be significant and are, therefore, not discussed in detail. Through the preparation of the Initial Study in July 2019 (included as Appendix 1.0 of this EIR), the City of Moorpark determined that an EIR was required to evaluate the potentially significant environmental effects of the proposed project. The following statements identify the items that were checked "No Impact or Less than Significant" on the Initial Study checklist and were not considered significant or applicable to the project, and, therefore, are not addressed in this Draft EIR:

- Agricultural and Forestry Resources:
  - The proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

- The proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

- The proposed project would not 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)).

- The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use.

- The proposed project would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland, to non-agricultural use.

  (Refer also to **Section 3.10, Land Use** for further discussion regarding Agricultural Resources.)

- Mineral Resources:

  - The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

  - The proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

1.5 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

A summary of the environmental impacts associated with implementation of the proposed project, mitigation measures included to avoid or lessen the severity of potentially significant impacts, and residual impacts, is provided in **Table 1.0-2, Summary of Impacts and Mitigation Measures**, below.

Table 1.0-2
Summary of Impacts and Mitigation Measures

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Aesthetics			
Impact AES-1 Have a substantial adverse effect on a scenic vista. Implementation of the specific plan would substantially alter the currently available scenic vista.	Significant	**AES-1:** To help minimize the short-term visual effects of mass grading, all manufactured slopes shall be hydro-mulched in conjunction with the grading process to prevent soil erosion and provide an environment conducive to plant growth. The seed mix used in the hydro-mulch slurry shall consist of a blend of fast-growing annual grasses and summer flowering forbs. **AES-2:** To minimize the change in the visual character of the site landscape screens must be placed around detention and debris basins in Planning Area 1, and below Planning Area 4 to limit views of these areas. These plantings must emphasize native species and shall comply with the City's Landscape Guidelines. At maturity, the landscaping shall be of a sufficient size to screen the detention basins.	Significant and Unavoidable
Impact AES-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Implementation of the specific plan would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact	No mitigation is required.	No Impact

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact AES- 3 In non-urbanized areas, **substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.** The project is in an urbanized area, implementation of the specific plan would not conflict with applicable zoning and other regulations governing scenic quality.	Less than Significant	No mitigation is required.	Less than Significant
Impact AES-4 Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Implementation of the specific plan could result in the creation of new **sources** of substantial	Significant	**AES-3:** Prior to issuance of a building permit, a lighting plan prepared by a lighting consultant shall be submitted to the City of Moorpark Department of Community Development for review and approval by the Community Development Director. The lighting plan shall incorporate 0.5 foot-candle as a threshold for spill and the minimum streetlamp glare level of 2.0 foot-candles. All fixtures shall utilize shields to direct light downward, and the lighting plan shall also incorporate other "dark sky" friendly measures to the extent feasible. Such measures may include, but are not limited to, the following or other comparable measures: • Use lighting fixtures that are adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
light and glare which would adversely affect daytime or nighttime views in the area.		• Restrict the operation of outdoor lighting for construction and operation activities to the hours of 7:00 a.m. to 10:00 p.m. • Use high pressure sodium and/or cut-off fixtures instead of typical mercury-vapor fixtures for outdoor lighting. • Use unidirectional lighting to avoid light trespass onto adjacent properties. • Design exterior lighting to confine illumination to the project site, and/or to areas which do not include light-sensitive uses. • Provide structural and/or vegetative screening from light-sensitive uses. • Shield and direct all new street and pedestrian lighting away from light-sensitive off-site uses. • Architectural lighting shall be directed onto the building surfaces and have low reflectivity to minimize glare and limit light onto adjacent properties. (Identical to MM BR-13) **AES-4:** When installed, all street lighting fixtures shall be tested and adjusted to ensure that light levels do not exceed 2.0 foot-candles of glare and 0.5 foot-candle of spill at the project boundaries. Testing of street lighting fixtures shall be conducted by factory-trained and -employed technicians only, contracted for by the master developer and subject to the approval of the Community Development Director. (Identical to MM BR-14)	
Air Quality			
Impact AQ-1 Conflict with or obstruct implementation of the applicable air quality plan. The project would not conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	No mitigation is required.	Less than Significant
Impact AQ-2 Result in a cumulatively considerable	Significant	***VCAPCD Construction Control Measures*** **CM AQ-1:** The following control measures provided in the VCAPCD Air Quality	Construction: Less than

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Implementation of mitigation measures CM AQ-1, CM AQ-2, MM AQ-1 and MM AQ-2 would reduce project construction impacts to less than significant. The day-to-day activities of the project would exceed the VCAPCD threshold of significance for ROC emissions. Feasible mitigation measures are not available to reduce these operational area source emissions.		Assessment Guidelines to minimize the generation of fugitive dust (PM10 and PM2.5), ROC, and NOx during construction activities shall be implemented during construction of the proposed project: • The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust. • Pre-grading/excavation activities shall include watering the areas to be graded or excavated before grading or excavation operations commences. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities. • Fugitive dust produced during grading excavation and construction activities shall be controlled by the following activities: All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization material, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible. • Graded and/or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally safe dust suppressants to prevent excessive fugitive dust. • Signs limiting traffic to 15 miles per hour or less shall be posted on site. • During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off site or on site. The site superintendent/supervisor shall use discretion in conjunction with the VCAPCD in determining when winds are excessive. • Adjacent streets and roads shall be swept at least once per day, preferably at the end of	Significant Operational: Significant and Unavoidable

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the day if visible soil material is carried over to adjacent streets and roads. • Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations. **CM AQ-2:** During construction contractors shall comply with the following measures to reduce NOx and ROC from heavy equipment as recommended by the VCAPCD in its Ventura County Air Quality Assessment Guidelines: • Minimize equipment idling time. • Maintain equipment engines in good condition and in proper tune as per manufacturer's specifications. • Lengthen the construction period during smog season (May through October) to minimize the number of vehicles and equipment operating at the same time. • Use alternatively fueled construction equipment, such as compressed natural gas (CNG), liquefied natural gas (LNG), or electric, if feasible. ***Construction Mitigation Measure*** **MM AQ-1:** During heavy grading, construction contractors shall comply with the following measures to reduce potential Valley Fever impacts: • Hire crews from local populations where possible, since it is more likely that they have been previously exposed to the fungus and are therefore immune. • Require crews to use respirators during project clearing, grading, and excavation operations in accordance with California Division of Occupational Safety and Health regulations. • Require that the cabs of grading and construction equipment be air-conditioned or enclosed with sufficient ventilation and particulate matter filtration systems. • Require crews to work upwind from excavation sites where possible. • Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering. • During rough grading and construction, the access way into the project site from adjoining paved roadways should be paved or treated with environmentally safe dust control agents. Implementation of VCAPCD CM-AQ-1 (above), control measures provided in the *VCAPCD Air Quality Assessment Guidelines* will also serve to minimize	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the generation of fugitive dust (PM10 and PM2.5). ***Operational Mitigation Measure*** The VCAPCD Air Quality Assessment Guidelines recommends that all development projects with significant air quality impacts fully mitigate excess emissions through funding measures for at least three years. Therefore, the following mitigation measure shall be implemented to reduce air quality impacts for the proposed project: **MM AQ-3:** As part of the project's Development Agreement, the Project Applicant shall submit payment of fees to the City of Moorpark's Transportation System Management Fund (Resolution No. 2006-2461). The fees shall be calculated using the procedure outlined in Resolution No. 2006-2461, which relies on the recommendation of the *VCAPCD Air Quality Assessment Guidelines*. As such, the fees shall be based on the unit cost for ROC in effect at the time the fee is to be paid using the Ventura County Air Quality Assessment Guidelines formula of: *(14 lbs excess mobile source ROC emissions) x (unit cost of ROG) x (365 days of operation) x (3 years) = total cost* The unit cost of ROG shall be calculated by adjusting the year 2000 unit cost of $5.18 per pound of ROC reduced with an inflation factor calculated by dividing the most recent January Consumer Price Index (All Urban Consumers [All Items 1982-1984=100]) value for the Los Angeles area by the January 2000 Consumer Price Index value for this region of 167.9. The City of Moorpark shall spend or commit the mitigation fees to a mitigation project within five years of receipt of the funds. The funds shall be prioritized for mitigation projects within Moorpark, or if not feasible to be located within Moorpark, shall be used for mitigation projects in other locations within Ventura County. The mitigation funds shall not be used for traffic engineering projects, including but not limited to signal synchronization, intersection improvements, or channelization. The City shall provide a report to the City Council annually on the collection, expenditure, and use of these mitigation fees. Each future entitlement, including but not limited to subdivision maps, planned development permits, and conditional use permits, may be conditioned to pay its proportionate share of the cost to reduce ROC emissions.	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact AQ-3 Expose sensitive receptors to substantial pollutant concentrations. The project could expose sensitive receptors to substantial pollutant concentrations.	Significant	***Construction Mitigation Measure*** **MM AQ-2:** For the entire duration of construction period, all off-road equipment greater than 25 horsepower shall have engines rated by the United States Environmental Protection Agency as complying with Tier 4 final emission limits.	Less than Significant
Impact AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less than Significant	No mitigation is required.	Less than Significant
Biological Resources			
Impact BIO-1 Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and	Significant	**BR-1:** The applicant shall retain a qualified biologist with a California Department of Fish and Wildlife (CDFW) Scientific Collection Permit and Memorandum of Understanding to conduct preconstruction surveys for the western spadefoot, coastal western whiptail, coast horned lizard, and coast patch-nose snake in areas that would be disturbed within the project site. All western spadefoot, coastal western whiptail, coast horned lizard, and coast patch-nose snake observed within the project site during preconstruction surveys must be relocated, at the approval of the City and CDFW, to an approved site with suitable habitat for these species. Surveys and relocation of spadefoots, lizards, and snakes may occur prior to construction; however, focused surveys must occur within 30 days prior to construction initiation to ensure that no special-status reptiles or amphibians are present within the project site during construction. Survey methods and relocation areas must be reviewed and approved by the CDFW prior to commencement of grading.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Wildlife (CDFW) or US Fish and Wildlife Service (USFWS). The project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.		**BR-2:** Thirty days prior to construction activities, a qualified biologist shall conduct CDFW protocol surveys to determine whether the burrowing owl is present at the site. The surveys shall consist of up to three site visits and shall be conducted in areas dominated by field crops, disturbed habitat, grasslands, and along levee locations, if such habitats occur within 500 feet of a construction zone. If located, occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either the birds have not begun egg-laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If a burrowing owl is detected but nesting is not occurring, construction work can proceed after any owls have been evacuated from the site using CDFW-approved burrow closure procedures and after alternative nest sites have been provided in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (10-17-95). Unless otherwise authorized by CDFW, a 500-foot buffer, within which no activity will be permissible, will be maintained between project activities and nesting burrowing owls during the nesting season. This protected area will remain in effect until August 31 or at CDFW's discretion and based upon monitoring evidence, until the young owls are foraging independently. **BR-3:** Thirty days prior to construction activities in grassland and scrub vegetation a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit and San Diego desert woodrat. If San Diego black-tailed jackrabbits are present, non-breeding rabbits shall be flushed from areas to be disturbed. Dens, depressions, nests, or burrows occupied by pups shall be flagged and ground-disturbing activities avoided within a minimum of 200 feet during the pup-rearing season (February 15 through July 1). This buffer may be reduced based on the location of the den upon consultation with CDFW. Occupied maternity dens, depressions, nests, or burrows shall be flagged for avoidance, and a biological monitor shall be present during construction. If unattended young are discovered, they shall be relocated to suitable habitat by a qualified biologist. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits. If active San Diego desert woodrat nests (stick houses) are identified within the disturbance zone or within 100 feet of the disturbance zone, a fence shall be erected around the nest site adequate to provide the woodrat sufficient foraging habitat at the discretion of the qualified	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		biologist in consultation with CDFW. If young are present, clearing and construction within the fenced area will be postponed or halted until young have left the nest. The biologist shall serve as a construction monitor during those periods when disturbance activities will occur near active nest areas to ensure that no inadvertent impacts to these nests will occur. If avoidance is not possible, the applicant will take the following sequential steps: 1. All understory vegetation will be cleared in the area immediately surrounding active nests followed by a period of one night without further disturbance to allow woodrats to vacate the nest; and 2. Each occupied nest will then be disturbed by a qualified wildlife biologist until all woodrats leave the nest and seek refuge off site; and 3. The nest sticks shall be removed from the project site and piled at the base of a nearby hardwood tree (preferably a coast live oak or California walnut). Relocated nests shall not be spaced closer than 100 feet apart, unless a qualified wildlife biologist has determined that a specific habitat can support a higher density of nests. The applicant shall document all woodrat nests moved and provide a written report to CDFW. All woodrat relocation shall be conducted by a qualified biologist in possession of a scientific handling and collecting permit. **BR-4:** Thirty days prior to construction activities in grassland, scrub, chaparral, oak woodland, streambank, and agriculture habitats, or other suitable habitat, a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for American badger. If American badgers are present, occupied habitat shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den. Maternity dens shall be avoided during the pup-rearing season (February 15 through July 1) and a minimum 200-foot buffer established. This buffer may be reduced based on the location of the den upon consultation with CDFW. Maternity dens shall be flagged for avoidance, identified on construction maps, and a qualified biologist shall be present during construction. If avoidance of a non-maternity den is not feasible, badgers shall be relocated either by trapping or by slowly excavating the burrow (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than 4 inches at a time) before or after the rearing season (February 15 through July 1). Any relocation of badgers shall occur only after consultation with CDFW.	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		All badger relocation shall be conducted by a qualified biologist in possession of a scientific handling and collecting permit. **BR-5:** Disturbed vegetation located on the east-side of Gabbert Road that includes California sagebrush-deerweed scrub, cactus scrub, and blue elderberry stands, which are unsuitable for California Gnat Catcher (CAGN) nesting but used as foraging habitat, shall be replaced at a ratio of 1:1. Although no individuals or breeding territories have been observed within the undisturbed California sagebrush-deerweed scrub to the west of Gabbert Road, impacts to this vegetation shall be replaced at a 2:1 ratio due to its potential to support foraging and nesting CAGN. CAGN habitat shall be restored on site. If a suitable on-site location is not feasible, restoration may occur at a mitigation bank, approved by USFWS prior to issuance of a grading permit or any ground disturbing activities on the Project site. If mitigation requirements cannot be met on-site and/or through the purchase of credits at a mitigation bank, a suitable off-site location may be identified and utilized subject to City and USFWS approval. Moreover, consultation with USFWS in accordance with the federal Endangered Species Act (FESA) will occur prior to issuance of a grading permit or any ground disturbing activities and their recommendations followed. The applicant shall be responsible for obtaining all necessary regulatory agency permits for compliance with the FESA. **BR-6:** Sixty (60) days prior to scheduled site mobilization, the applicant shall submit a Native Habitat Restoration Plan for the restoration of a native habitat on the site to the satisfaction of the Community Development Director, CDFW, and USFWS, which shall be approved by the aforementioned prior to issuance of a building permit or ground disturbing activities at the project site. At a minimum, the Restoration Plan shall identify all responsible parties/stakeholders, performance standards, success criteria, plant pallet and planting methods, irrigation details and watering schedule, maintenance measures and schedule, monitoring and reporting requirements, contingencies, adaptive management strategies, and funding sources, such as an endowment for long-term management. Native vegetation on the Project site shall be incorporated in the plan at the ratios indicated below:	

<table>
<tr><th>Project Impacts</th><th>Level of Significance Without Mitigation</th><th>Mitigation Measures</th><th>Level of Significance After Mitigation</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Plant Community</th><th>Replacement Ratio
(area replaced : area impacted)</th></tr>
<tr><td>California sagebrush -deerweed scrub (west of Gabbert Rd)</td><td>2:1</td></tr>
<tr><td>California sagebrush -deerweed scrub (east of Gabbert Rd)</td><td>1:1</td></tr>
<tr><td>Blue elderberry stands (disturbed/grazed)</td><td>1:1</td></tr>
<tr><td>Cactus scrub</td><td>1:1</td></tr>
<tr><td colspan="2">*Source: Rincon Consultants, Inc., November 2021*</td></tr>
</table>

Once approved, implementation of the Native Habitat Restoration Plan shall be required as a condition of approval of the Tract Map and RPD. The restoration shall be performed in accordance with current best available restoration practices and the applicant (or designee) shall be responsible for maintaining the restoration areas for a period of five years to ensure the successful establishment of the plantings, which shall be extended an additional three years if determined necessary by the Community Development Director. The applicant shall pay the costs for monitoring restoration of the Native Habitat for the full and complete restoration time period, which if extended shall require further payment. If a suitable on-site restoration is not feasible, restoration may occur at a mitigation bank, approved by CDFW and USFWS prior to issuance of a building permit or any ground disturbing activities on the Project site. If restoration requirements cannot be met on site and/or through the purchase of credits at a mitigation bank, a suitable off-site location may be identified and utilized. The off-site location and restoration Plan shall be reviewed and approved by the City prior to issuance of a grading permit and secured prior to any ground disturbing activities on the Project site.

BR-7: All areas temporarily impacted by project grading and construction activities but within the fuel management zone must be revegetated with California native plant species, with densities and spacing consistent with the intent of maintaining fuel management zones as described in the City's Landscape Standards and Guidance and the Hitch Ranch Fire Protection Plan (refer to **Appendix 3.18-A**).</td><td></td></tr>
</table>

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact BIO-2 Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations of the CDFW or USFWS. The project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Significant	Implementation of Mitigation Measures **BR-6** and **BR-7**, as listed above.	Less than Significant
Impact BIO-3 Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, *etc.*) through direct removal, filling, hydrological interruption, or other means. The project could have a substantial adverse effect on state or federally	Significant	**BR-8:** In order to comply with city, state, and federal regulations regarding impacts to USACE, CDFW and RWQCB jurisdictional areas permitting must be executed pursuant to Section 404 of the federal Clean Water Act and the *California Fish and Game Code* (Section 1602), for all impacts to WOTUS and streambeds. All conditions of the agreements with these agencies designed to minimize impacts to biological resources shall be implemented. Impacts associated with permanently disturbed areas within regulated waters would be mitigated in-kind at a minimum ratio of 1:1. Mitigation will be completed by providing adequate funding to a conservation bank for re-establishment, rehabilitation or enhancement. Mitigation lands should be located in the regional vicinity of the project site or within the Calleguas Creek Watershed. Note: the final mitigation ratios required by regulatory agencies during the permitting process may differ from those identified above. The applicant shall be responsible for obtaining all necessary regulatory agency permits for compliance with the Clean Water Act and California Fish and Game Code.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
protected wetlands (including, but not limited to, marsh, vernal pool, coastal, *etc.*) through direct removal, filling, hydrological interruption, or other means.			
Impact BIO-4 Would the project interfere substantially with the movement of any native or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Significant	**BR-9:** Within seven (7) days prior to construction or site preparation activities that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically January 15 through August 30 for raptors and February 15 through September 15 for migratory passerines), the applicant shall have a field survey conducted by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act or the California Fish and Game Code are present in the construction zone or within 300 feet (500 feet for raptors or federally listed endangered or threatened bird species) of the construction zone. If active nests are found, all construction activities within the 300/500 foot buffer zones must be postponed or halted, until the biologist determines that the nest is vacated, juveniles have fledged, and there is no evidence of a second attempt at nesting. The biological monitor shall be able to adjust the size of the buffer zone dependent on the species involved (i.e., non-raptors and common species) and/or allow certain activities within the buffer zone if it can be shown that the activity will not interfere with nesting. The biologist shall serve as a construction monitor during those periods when construction activities would occur near active nest areas to ensure that no inadvertent impacts occur to these nests.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact BIO-5 Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Significant	**BR-10:** A tree removal permit must be obtained from the City prior to removal of trees that meet the mature tree criteria within the City's tree ordinance (No. 101). Permits will not be issued until the project has been approved by the City. The loss of trees shall be mitigated by using the appraised value of each removed tree and then applying the value towards upgrading the size of the tree plantings associated with the project. The proposed replacement tree species shall emphasize native species and must be consistent with the City's Landscape Design Standards and Guidelines to ensure that invasive species will not be used. In accordance with the Landscape Design Standards and Guidelines, 'enhanced landscaping' shall be installed that is equal to the value of the trees removed.	Less than Significant
Impact BIO-6 Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The project onflict 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	No mitigation is required.	No Impact

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Indirect Impacts to Biological Resources			
Human and domestic animal presence could impact local biological resources.	Significant	**Operational Mitigation** **BR-11:** Following construction, pets and other domestic animals must be prohibited from the remaining open space areas and from any revegetation areas on the project site unless restrained by leash and accompanied at all times by the owner or responsible party. Fencing of sufficient height and design or acceptable landscaping must be constructed between the residential areas and natural areas to the north to discourage domestic animals from entering open space habitat areas. Human access into the open space areas may occur in designated areas along the perimeter of the habitats. Prohibitions against human and domestic animal use in sensitive habitat areas must be established by the Covenants, Conditions, and Restrictions (CC&Rs). A brochure must be prepared by the developer and distributed to all home buyers that explains the purpose and sensitivity of the mitigation area and reasons why residents and their pets are discouraged from using this area. Signage shall be provided at the entrance of trails that are nearby sensitive habitat areas to notify users of the nature of the area and it's sensitivity. The CC&Rs must also state that no structures shall be constructed within the open space areas. As determined by a qualified biologist, interpretative signs that explain the sensitivity of natural habitats and the need to minimize impacts on these adjacent areas are to be constructed and placed in appropriate areas. The project applicant shall be responsible for installation of interpretive signs (at 200-foot intervals) and fencing along the perimeter of the mitigation area.	Less than Significant
New landscaping could introduce invasive non-native plant species.	Significant	**BR-12:** The landscaping plans within the project area (residential and common areas) shall be prepared by a licensed California landscape architect, and shall provide appropriate provisions to prohibit using invasive plant species, especially those listed by the California Invasive Plants Council (their website provides a current invasive plants list), to prevent those species from colonizing remaining natural areas. Landscaping plans shall be consistent with the City of Moorpark Municipal Code Section 15.23 Water Efficient Landscape Ordinance and Title 17, Zoning. These provisions may include the following: (a) review and screening of proposed plant palette and planting plans to identify and avoid the use of invasive species; (b) weed removal during the initial planting of landscaped areas; and (c) the monitoring for and removal of weeds and other invasive plant species as part of ongoing landscape maintenance activities. The frequency and method of monitoring for invasive species shall be determined by the City of Moorpark Parks, Recreation and Community	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Services Department.	
The project would introduce new sources of light and glare which could impact wildlife.	Significant	**BR-13:** Prior to issuance of a grading permit, a lighting plan prepared by a lighting consultant consistent with the Specific Plan Design Guidelines Lighting Concept shall be submitted to the City of Moorpark Department of Community Development for review and approval by the Community Development Director. The lighting plan shall incorporate (0.5 foot-candle) as a threshold for spill and the minimum streetlamp glare level of 2.0 foot-candles). All fixtures shall utilize shields to direct light downward, and the lighting plan shall also incorporate other "dark sky" friendly measures to the extent feasible. Such measures may include, but are not limited to, the following or other comparable measures: • Use lighting fixtures that are adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. • Restrict the operation of outdoor lighting for construction and operation activities to the hours of 7:00 a.m. to 10:00 p.m. • Use high pressure sodium and/or cut-off fixtures instead of typical mercury-vapor fixtures for outdoor lighting. • Use unidirectional lighting to avoid light trespass onto adjacent properties. • Design exterior lighting to confine illumination to the project site, and/or to areas which do not include light-sensitive uses. • Provide structural and/or vegetative screening from light-sensitive uses. • Shield and direct all new street and pedestrian lighting away from light-sensitive off-site uses. • Architectural lighting shall be directed onto the building surfaces and have low reflectivity to minimize glare and limit light onto adjacent properties. (Identical to MM AES-3) **BR-14:** When installed, all street lighting fixtures shall be tested and adjusted to ensure that light levels do not exceed 2.0 foot-candles of glare and 0.5 foot-candle of spill at the project boundaries. Testing of street lighting fixtures shall be conducted by factory-trained and -employed technicians only, contracted for by the master developer and subject to the approval of the Community Development Director. (Identical to MM AES-4)	Less than Significant
Construction grading activities could impact	Significant	**Construction Monitoring Measures** **BR-15:** A City-approved biologist must be retained by the applicant as a construction	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
local biological resources.		monitor to ensure that incidental construction impacts on retained biological resources are avoided or minimized. Responsibilities of the construction monitor include the following: • Attend all pre-grading meetings to ensure that the timing and location of construction activities do not conflict with mitigation requirements. • A pre-construction Worker Environmental Awareness Program (WEAP) training shall be conducted for all construction employees. Prior to the start of construction activities, the WEAP shall be presented to inform construction supervisors, workers, and inspectors of sensitive resources that have a moderate to high potential of occurrence on the project site, to explain their importance and sensitivity, to review regulatory protections afforded to these resources, and to describe the project design features and mitigation measures adopted to avoid and reduce impacts. Training shall identify individual responsibilities regarding these resources, and communication procedures should sensitive resources exist or be found in the project area. Training participation shall be documented and kept as a log on site. Workers will receive a hard hat decal to show completion and receive a reference resource (i.e. wallet card, brochure, etc.) for later review as needed. • Conduct meetings with the contractor and other key construction personnel, describing the importance of restricting work to within the project boundaries and outside of the preserved areas. The monitor shall also discuss staging/storage areas for construction equipment and materials. The biological monitor shall investigate all on site storage areas to minimize impacts to biological resources. • Guide the contractor in marking/flagging the construction area, in accordance with the final approved grading plan. Any construction activity areas immediately adjacent to special-status plant populations or other special-status resources may be directed to be flagged or temporarily fenced at the discretion of the monitor. • Periodically and routinely visit the site during construction to coordinate and monitor compliance with the above provisions. **BR-16:** The construction contractor shall install temporary erosion control measures, if necessary, to reduce impacts to and protect off-site drainages from excess sedimentation, siltation, and erosion. These measures shall consist of minimization of existing vegetation removal; the use of temporary soil covers, such as hydroseeding, mulch/binder, and erosion-control blankets to protect exposed soil from wind and rain erosion; or the installation of silt fencing, coirs, berms, and dikes to protect storm drain inlets and drainages.	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		BR-17: Refueling, changing of oil or other fluids, and vehicle maintenance may be allowed in designated areas located a minimum of 50 feet away from any drainages or proposed mitigation areas. The contractor shall be responsible for providing and maintaining covered trash bins or dumpsters for any trash or other construction waste materials generated on the site during the project. Vehicles carrying supplies, such as concrete, may not empty, clean out, or otherwise place materials into any mitigation or opens space areas on or immediately adjacent to the site. Any spills or trash on the site, whether accidental or not, must be cleaned up at the end of each working day. **BR-18:** Any equipment or vehicles driven or operated within or adjacent to drainages must be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. (Vehicles and equipment shall not be left idling or operated beyond periods needed to accomplish approved tasks.) **BR-19:** Construction personnel are prohibited from entry into areas outside the designated construction area, except for necessary construction related activities, such as surveying. All such construction activities including access in or adjacent to remaining open space areas must be coordinated with the project biologist. **BR-20:** Standard dust-control measures of the Ventura County Air Pollution Control District must be implemented to reduce impacts to nearby plants and wildlife. This includes a variety of options to reduce dust including replacing ground cover in disturbed areas as quickly as possible, using tackifiers in watering trucks on active sites regularly, and suspending all excavating and grading operations during periods of high winds. **BR-21:** Upon completion of construction, the contractor shall be held responsible for scarifying and hydroseeding, using native plant seeds, on any haul roads, access roads, or staging areas that are outside of approved grading limits. This restoration must be done in consultation with the project biologist.	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cultural Resources			
Impact CUL-1 Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. The project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.	No Impact	No mitigation is required.	No Impact
Impact CUL-2 Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. The project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	Significant	**CUL-1:** Due to the potential that archeological resources may be present on the Project site, the City of Moorpark shall require a note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources, including prehistoric Native American artifacts. Construction personnel associated with earth moving equipment, drilling, grading, and excavating, shall be provided with basic training conducted by a qualified archaeologist, to be retained and compensated by the development team, with the approval of the City of Moorpark. Issues that shall be included in the basic training will be geared toward training the applicable construction crews in the identification of archaeological deposits, further described below. Training will include written notification of the restrictions regarding disturbance and/or removal of any portion of archaeological deposits and the procedures to follow should a resource be identified. The construction contractor, or its designee, shall be responsible for implementation of this measure. A Native American monitor shall be provided an opportunity to attend the pre-construction briefing if requested. A Native American monitor from a consulting Tribe under AB 52 and a qualified archeologist, to be compensated by the development team, shall be available on an "on-call" basis during ground disturbing construction in native soil to review, identify and evaluate cultural resources that may be inadvertently exposed during construction.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		If archaeological remains or tribal cultural resources are uncovered, all construction activities within a 100-foot radius shall be halted immediately until a qualified archaeologist, in consultation with the Native American monitor, shall evaluate whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. If any previously undiscovered resources are found during construction the City of Moorpark Community Development Department shall be contacted, and the resource shall be evaluated for significance in terms of CEQA criteria by a qualified archaeologist. Prehistoric archaeological site indicators include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and handstones, and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire-affected stones. Historic period site indicators generally include but are not limited to: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps). If City and the qualified archaeologist determine the resource to be significant under CEQA, they shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. Contingency funding and a time allotment sufficient for recovering an archeological sample or to employ an avoidance measure may be required. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a formal Archaeological Monitoring Plan (AMP) which will include a research design and archaeological data recovery plan for the resource. Development and implementation of the AMP will be determined by the City of Moorpark and treatment of any significant cultural resources shall be undertaken with the approval of the project applicant, and the City. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System [CHRIS]), and provide for the permanent curation of the recovered materials. The City of Moorpark and/or development team shall, in good faith, consult with the Fernandeño Tataviam Band of Mission Indians and consulting Tribes on the disposition and treatment of any recovered materials. A Monitoring Closure Report shall be filed with the City of Moorpark at the conclusion of ground disturbing construction if archaeological resources were encountered and/or recovered. After the find has been appropriately mitigated (as defined by State CEQA Guidelines Section 15126.4(b)), work in	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the area may resume.	
Impact CUL-3 Would the project disturb any human remains, including those interred outside of dedicated cemeteries. The project could disturb any human remains, including those interred outside of formal cemeteries.	Significant	**CUL-2:** If human remains or funerary objects are unearthed during any activities associated with the project, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur within a 100-foot buffer of the find until the County coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC), the Fernandeño Tataviam Band of Mission Indians, and consulting Tribes. The NAHC will then contact the deceased Native American's most likely descendant, who will then serve as consultant on how to proceed with the remains (i.e., avoid, rebury).	Less than Significant
Energy			
Impact ENR-1 Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. The project could result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	Significant	Implementation of **VCAPCD Construction Control Measures CM AQ-1 and CM AQ-2, Construction Mitigation Measure MM AQ-2**, as listed above.	Less than Significant
Impact ENR-2 Would the project conflict with or obstruct a state or local plan for renewable energy	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
or energy efficiency. The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.			
Geology and Soils			
Impact GEO-1a Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault. The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State	Less Than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Geologist for the area or based on other substantial evidence of a known fault.			
Impact GEO-1b Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.	Less Than Significant	No mitigation is required.	Less than Significant
Impact GEO-1c Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. The project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-	Significant	**GS-1:** The applicant shall conduct additional geotechnical work, consisting of soil borings and laboratory analysis, within the areas of the structures to better define the severity of liquefaction, settlement, and expansiveness conditions. Once the severity of these soil characteristics are determined, then appropriate measures contained within the geotechnical reports will be incorporated into the design of the project. Feasible techniques to mitigate any defined liquefaction, settlement, and expansive soils could include, but would not be limited to, (1) in-situ densification; (2) vibro replacement; (3) compaction grouting or chemical stabilization; or (4) deep foundations and self-supporting structural slabs, (5) over-excavation and replacement with properly compacted fill, and/or (6) design of foundation systems with appropriate thickness and reinforcing.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
related ground failure and liquefaction			
Impact GEO-1d Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. The project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.	Significant	**GS-1:** The applicant shall conduct additional geotechnical work, consisting of soil borings and laboratory analysis, within the areas of the structures to better define the severity of liquefaction, settlement, and expansiveness conditions. Once the severity of these soil characteristics are determined, then appropriate measures contained within the geotechnical reports will be incorporated into the design of the project. Feasible techniques to mitigate any defined liquefaction, settlement, and expansive soils could include, but would not be limited to, (1) in-situ densification; (2) vibro replacement; (3) compaction grouting or chemical stabilization; or (4) deep foundations and self-supporting structural slabs, and/or (5) over-excavation and replacement with properly compacted fill, and/or (6) design of foundation systems with appropriate thickness and reinforcing. **GS-2:** All cut-and-fill slopes must be designed at a 2:1 [2(h) to 1(v)] gradient or less. **GS-3:** Cut slopes exposing rock that exposes locally-adverse geologic conditions, expose sandy bedrock materials that are friable and prone to erosion, or where possible nuisance seepage issues could occur may require replacement with stabilization fill slopes. Stabilization fill slopes typically consists of removing the exposed slope face in a swath 10 to 15 feet wide (extending in from the slope face) and rebuilding the slope with compacted fill. All cut slopes shall be evaluated to confirm that no adverse geologic conditions are exposed at slope locations.	Less than Significant
Impact GEO-2 Would the project result in substantial erosion or the loss of topsoil. The project would not result in substantial soil erosion or the loss of topsoil.	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact GEO-3 Would the project on a geologic unit or soil type that is unstable, or that could become unstable as a result of the project, and potentially result in on-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. Portions of the project site are located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Significant	Implement Mitigation Measures **GS-1** though **GS-3**.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact GEO-4 Would the project be located on expansive soil, creating substantial risks to life or property. Portions of the project site are located on expansive soil, as defined in Table 18 1 B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	Significant	Implement Mitigation Measure **GS-1**.	Less than Significant
Impact GEO-5 Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water. The project would not use septic tanks or alternative wastewater disposal systems as sewers are available for the disposal of wastewater	No Impact	No mitigation is required.	No Impact

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact GEO-6 Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	Significant	**GS-4:** All project-related ground disturbances that could potentially impact the Saugus Formation and Quaternary older alluvium will be monitored by a qualified paleontological monitor available on-call as needed, as these geologic units are determined to have a high paleontological sensitivity rating. Since younger alluvial and colluvial deposits cover the majority of the site and are considered to have a low paleontological sensitivity, monitoring of excavation activities in this unit will be conducted on a part-time basis to ensure that no underlying sensitive units are being impacted. **GS-5:** A qualified paleontologist as defined by the SVP Guidelines (2010) will be retained to supervise monitoring of construction excavations and to produce a mitigation plan for the proposed project. Paleontological monitoring will include inspection of exposed rock units during active excavations. The monitor will have authority to temporarily divert grading away from exposed fossils in order to professionally and efficiently recover the fossil specimens and collect associated data. The qualified paleontologist will prepare monthly progress reports to be filed with the applicant and the lead agency. **GS-6:** At each fossil locality, field data forms will be used to record pertinent geologic data, stratigraphic sections will be measured, and appropriate sediment samples collected and processed for analysis. **GS-7:** Recovered fossils will be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and reposed in a designated paleontological curation facility. Potential repositories include the Natural History Museum of Los Angeles County, Santa Barbara Museum of Natural History, and the Museum of Ventura County, as determined by the Moorpark City Council. **GS-8:** The qualified paleontologist shall prepare a final monitoring and mitigation report to be filed with the applicant, the lead agency, and the repository.	Less than Significant
Greenhouse Gas Emissions			
Impact GHG-1 Would the project generate greenhouse gas emissions,	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
either directly or indirectly, that may have a significant impact on the environment. The project would not generate greenhouse gas emissions, either directly or indirectly, that would have a significant impact on the environment.			
Impact GHG-2 Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gas emissions. The project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.	Less than Significant	No mitigation is required.	Less than Significant
Hazards and Hazardous Materials			
Impact HAZ-1 Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The project would not	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.			
Impact HAZ-2 Would the project a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Significant	**HM-1** Water Well Mitigation If any water wells are found during grading or development of the property, the following minimum conditions for well destruction shall be met: • Pump and motor shall be removed, and the interior of the well shall be filled with inert material (clean sand or gravel) from total depth to within 40 feet of ground surface or remove debris in well casing to a depth of 40 feet. • Well casing shall be perforated at least every foot opposite the sealing zone from a depth of 40 feet to within 10 feet of finish grade. Perforations shall be placed on alternating sides of the casing. • Neat cement sealing material shall be applied from a depth of 40 feet to within 5 feet of finish grade by means of a grout pipe placed within 2 feet of the base of the sealing zone. If static water level is deeper than 40 feet, grout pipe is not necessary. • Casing shall be removed to a depth of 5 feet below finish grade, and work area backfilled with native materials. • County of Ventura Public Works Inspector shall be present during casing perforation work and placement of all sealing material. 24-hour advance notice is required for Public Works Inspections. • All work shall be performed by a well contractor licensed in the State of California and registered with the County of Ventura.	Less than Significant
Impact HAZ-3 Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
existing or proposed school. The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.			
Impact HAZ-4 Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment. The project would not result in a significant impact associated with a location on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.	No Impact	No mitigation is required.	No Impact
Impact HAZ-5 For a project located within an airport land use plan or,	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area. The project would not result in a safety hazard or excessive noise for people residing or working in the project area.			
Impact HAZ-6 Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact HAZ-7 Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	Less than Significant	**Refer to Section 3.18, Wildfire for additional analysis**	Less than Significant
Hydrology and Water Quality			
Impact HYD-1 Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. The project could violate water quality standards, waste discharge requirements or otherwise	Significant	**HYD-1**: During site preparation and construction, the contractor shall minimize disturbance of natural groundcover on the project site until such activity is required for grading and construction purposes. During grading operations, the developer shall employ a full-time superintendent for National Pollutant Discharge Elimination System (NPDES) compliance. If determined necessary by the City Engineer/Public Works Director, the NPDES superintendent shall be present on the project site Monday through Friday and on all other days when the probability of rain is 50 percent or higher and prior to the start of and during all grading or clearing operations until the release of grading bonds. The NPDES superintendent shall have full authority to hire personnel, bind the developer in contracts, rent equipment, and purchase materials to the extent needed to effectuate Best Management Practices (BMPs). The NPDES superintendent shall provide proof to the City Engineer/Public Works Director of attendance and satisfactory completion of courses satisfactory to the City	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
substantially degrade surface or ground water quality.		Engineer/Public Works Director totaling no less than 8 hours directed specifically to NPDES compliance and effective use of BMPs. Proof of such attendance and completion shall be provided to the City Engineer/Public Works Director prior to employment of the NPDES superintendent. **HYD-2:** Prior to issuance of the initial grading permit, the applicant shall have prepared a Post Construction Stormwater Management Plan (PCSMP) and include Non-Structural, Source Control, and Structural Best Management Practices (BMPs). A certified erosion and sediment control professional or qualified civil engineer shall prepare the PCSMP. The PCSMP shall be reviewed and approved by the Moorpark Community Development Director and City Engineer/Public Works Director. The development of the PCSMP shall conform to the Ventura County National Pollutant Discharge Elimination System permit, the PCSMP standards, and the Technical Guidance Manual for Storm Water Quality Control Measures. The following are the minimum required mitigation from the Technical Guidance Manual for Storm Water Quality Control Measures. The PCSMP portion of the drainage master plan shall address: • Storm Drain Message and Signage. The appropriate locations for the signage regarding discharge prohibitions at storm drain inlets and a standard message to be used throughout the specific plan site. • Outdoor Material Storage Area Design. General design criteria for outdoor material storage area design. • Outdoor Trash Storage and Waste Handling Area Design. General design criteria for outdoor trash storage and waste handling area design. • Outdoor Loading/Unloading Dock Area Design. General design criteria for outdoor loading/unloading dock area design. • Outdoor Repair/Maintenance Bay Design. General design criteria for outdoor repair and maintenance bay design. • Outdoor Vehicle/Equipment/Accessory Washing Area Design. General design criteria for outdoor vehicle, equipment, and accessory washing area design. • Fueling Area Design. General design criteria for fueling area design. • Proof of Control Measure Maintenance. To ensure that maintenance is provided, the City of Moorpark Public Works Department (PWD) will require a maintenance agreement and a maintenance plan, including an Storm Water Operations and	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Maintenance Manual (O&M Manual), from the owner/operator of the storm water control measures. The PCSMP and O&M Manual shall identify the party(ies) responsible for maintenance of control measures, and shall be submitted to the PDW for review and acceptance. A Stormwater O&M Covenant shall be recorded for the property. **HYD-3:** The PCSMP/O&M Manual shall include structural and/or treatment BMPs. The structural BMPs shall focus on meeting potential total maximum daily loads (TMDL) and pollutant standards for residential developments. The treatment BMPs shall conform to the *Technical Guidance Manual for Storm Water Control Measures*. The PCSMP guidelines contained in the *National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements* for Ventura County state that structural BMPs are required for all new developments. The structural BMPs shall be sized to comply with one of the following numeric sizing criteria, unless an alternative is considered by the permittees to provide equivalent or better treatment. Groundwater quality must be evaluated based on the amount of water and the potential pollutants that may be introduced associated with the buildout of the specific plan site. Stormwater Quality Design Volume (SQDV) shall be calculated using the following four allowable methodologies: a. The 85th percentile 24-hour runoff event determined as the maximized capture stormwater volume for the area using a 48 to 72-hour draw down time, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998); or b. The volume of annual runoff based on unit basin storage water quality volume to achieve 80 percent or more volume treatment; or c. The volume of runoff produced from a 0.75 inch storm event; or d. Eighty (80) percent of the average annual runoff volume using an appropriate public domain continuous flow model [such as Storm Water Management Model (SWMM) or Hydrologic Engineering Center – Hydrologic Simulation Program – Fortran (HEC-HSPF)], using the local rainfall record and relevant BMP sizing and design data. Volume-based BMPs shall be designed to infiltrate or treat either: a. The volume of annual runoff based on unit basin storage water quality volume, to achieve eighty (80) percent or more volume treatment by the method	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		recommended in the *California Storm Water Best Management Practices Handbook–Industrial/ Commercial* (1993), the *Ventura Countywide Storm Water Quality Management Program Land Development Guidelines*; or b. The 85th percentile 24-hour runoff event determined as the maximized capture storm water volume for the area, from the formula recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87* (1998); or c. The volume of runoff produced for a 0.75-inch storm event, prior to its discharge to a storm water conveyance system; or d. The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for "treatment" that achieves approximately reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event. The volume of runoff produced from the 85th percentile 24-hour storm event, as determined from the local historical rainfall record. Flow-based BMPs shall be designed to infiltrate or treat either a. Ten percent of the 50-year design flow rate, or b. A flow that will result in treatment of the same portion of runoff as treated using volumetric standards, or c. A rain event equal to at least 0.2 inch per hour intensity; or d. A rain event equal to at least two times the 85th percentile hourly rainfall intensity for Ventura County. The *Technical Guidance Manual for Storm Water Quality Control Measures* requires that treatment controls measures be used for any new development. The following is a partial list of treatment control measures that may be used by the applicant: • Grass Strip Filter • Grass Swale Filter • Extended Detention Basin • Wet Detention Basin • Constructed Wetland • Detention Basin/Sand Filter	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• Porous Pavement Detention • Porous Landscape Detention • Infiltration Basin • Infiltration Trench The following discussion identifies treatment control measures that are appropriate for use on the Hitch Ranch Specific Plan site: • Grass Strip and Swales. An appropriate treatment is either vegetative swales, enhanced vegetated swales utilizing check dams and wide depressions, a series of small detention facilities designed similarly to a dry detention basin, or a combination of these treatment methods into a treatment train (a series of Structural BMPs). It is essential that the PCSMP address treatment for Hitch Ranch to assure that the runoff from the site be treated to the "maximum extent practicable." In order for the vegetation swales to be effective in the removal of potential pollutants, the swales must be treated as water quality features and must be maintained differently than grass areas. Specifically, pesticides, herbicides, and fertilizers, which may be used on the grass areas, must not be used in the vegetation swales. Anticoagulant rodenticides are not to be used in any areas within the project. • Infiltration Trenches and Basins. Infiltration trenches and/or basins may be used on site to meet potential future TMDLs for noxious aquatic plants and nutrients. Infiltration trenches and basins treat storm water runoff through filtration. A typical infiltration trench is essentially an excavated trench, which is lined with filter fabric and backfilled with stones. Depth of the infiltration trench ranges from 3 to 8 feet and functions best in areas with permeable soils, and water table and bedrock depth situated well below the bottom of the trench. Trenches should not be used to trap coarse sediments, because large sediment will likely clog the trench. Grass buffers can be installed to capture sediment before it enters the trench to minimize clogging. Infiltration basins are generally used for drainage areas between 5 and 50 acres. Infiltration basins can be either in-line or off-line, and may treat different volumes such as the water quality volume or the 2-year or 10-year storm. • All structural BMPs shall be included in the Storm Water O&M Manual.	
		HYD-4: Prior to the issuance of the first grading permit and as a part of the project's	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		compliance with the National Pollutant Discharge Elimination System (NPDES) program, the applicant shall file a Notice of Intent (NOI) with the California State Water Resources Control Board providing notification and intent to comply with the State of California general permit. Prior to issuance of the first grading permit, a Storm Water Pollution Prevention Plan (SWPPP) must be completed for on-site and associated off-site construction activities. A copy of the SWPPP must be available and implemented at the construction site at all times. The SWPPP outlines the source control and/or treatment control best management practices (BMPs) that will avoid or mitigate runoff pollutants at the construction site to the "maximum extent practicable." A listing of these BMPs from the *California Storm Water Best Management Practice Handbook-Construction Activity* is provided below. • Dewatering Operations. This operation requires the use of sediment controls to prevent or reduce the discharge of pollutant to storm water from dewatering operations. • Paving Operations. Prevent or reduce the runoff of pollutant from paving operations by proper storage of materials, protecting storm drain facilities during construction, and training employees. • Structural Construction and Painting. Keep site and area clean and orderly, use erosion control, use proper storage facilities, use safe products, and train employees to prevent and reduce pollutant discharge to storm water facilities from construction and painting. • Material Delivery and Storage. Minimize the storage of hazardous materials on the site. If stored on site, keep in designated areas, install secondary containment, conduct regular inspections, and train employees. • Material Use. Prevent and reduce the discharge of pesticides, herbicides, fertilizers, detergents, plaster, petroleum products, and other hazardous materials from entering the storm water. • Solid Waste Management. This BMP describes the requirements to properly design and maintain trash storage areas. The primary design feature requires the storage of trash in covered areas. • Hazardous Waste Management. This BMP describes the requirements to properly design and maintain waste areas. • Concrete Waste Management. Prevent and reduce pollutant discharge to storm	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		water from concrete waste by providing on-site and off-site washouts in designated areas and training employees and consultants regarding their use. • Sanitary Septic Water Management. Provide convenient, well-maintained facilities, and arrange regular service and disposal of sanitary waste. • Vehicle and Equipment Cleaning. Use off-site facilities or wash in designated areas to reduce pollutant discharge into the storm drain facilities. • Vehicle and Equipment Fueling. Use off-site facilities or designated enclosed coverings to reduce pollutant discharge into the storm drain facilities. • Vehicle and Equipment Maintenance. Use off-site facilities or designated on-site enclosed areas with coverings to reduce pollutant discharge into the storm drain facilities. In addition, run a "dry site" to prevent pollution discharge into storm drains. • Employee and Subcontractor Training. Have training sessions for employees and subcontractors to understand the need for implementation and usage of BMPs and the need and purpose for keeping the site clean. • Preservation of Existing Vegetation. Minimize the removal of existing trees and shrubs because they serve as erosion control. • Seeding and Planting. Provide soil stability by planting and seeding grasses, trees, shrubs, vines, and ground cover. • Mulching. Stabilize cleared or freshly seeded areas with mulch. • Geotextiles and Mats. Natural or synthetics material can be used for soil stability. • Dust Control. Reduce wind erosion and dust generated by construction activities by using dust control measures. • Construction Road Stabilization. All on-site vehicle transport routes should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust. • Stabilized Construction Entrance. Stabilize the construction entrance area to reduce amount of sediment tracked off the site. • Earth Dikes. Construct earth dikes of compacted soil to divert runoff or channel water to a desired location. • Temporary Drains and Swales. Use temporary drains and swales to divert off-site	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		runoff around the construction site, stabilized areas, and direct it into sediment basins or traps. • Outlet Protection. Use rock or grouted rock at outlet pipes to prevent scouring of soil caused by high velocities. • Check Dams. Check dams reduce velocities of concentrated flows, thereby reducing erosion, and promoting sedimentation behind the dams. Check dams are small and placed across swales and drainage ditches. • Silt Fence. Composed of filter fabric, which have been entrenched, attached to support poles, and sometimes backed by wire fence support. Silt fences promote sedimentation behind the fence of sediment-laden water. • Straw Bale Barrier. Place straw bales end to end in a level contour in a shallow trench and stake them in place. The bales will detain runoff and promote sedimentation. • Sand Bag Barriers. By stacking sandbags on a level contour, creates a barrier to detain sediment-laden water. The barrier will promote sedimentation. • Brush or Rock Filter. Made of 0.75-inch to 3-inch diameter rocks place on a level contour or composed of brush wrapped in filter cloth and staked to the toe of the slope will provide a sediment trap. • Storm Drain Inlet Protection. Devices that remove sediment from sediment laden storm water before entering the storm drain inlet or catch basin. • Sediment Trap. A sediment trap is a small, excavated, or bermed area where runoff for small drainage areas can pass through allowing sediment to settle out. **HYD-5:** The Hitch Ranch Homeowners Association (HOA) and/or a Community Facilities District (CFD) shall be responsible for the maintenance of the basin embankments and structures so that it does not become a public liability. This information shall be included in the HOA Covenants, Conditions & Restrictions (CC&Rs).	
Impact HYD-2 Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge	Significant	Implementation of **Mitigation Measure HYD-3**, as listed above.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
such that the project may impede sustainable groundwater management of the basin The project could have the potential to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.			
Impact HYD-3a Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site. The project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or	Significant	Implementation of **Mitigation Measures HYD-1** through **HYD-4**, as listed above.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.			
Impact HYD-3b Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of flooding on- or off-site. The project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of flooding on- or off-site.	Significant	Implementation of **Mitigation Measures HYD-1** through **HYD-4**, as listed above.	Less than Significant
Impact HYD-3c Would the project substantially	Significant	Implementation of **Mitigation Measures HYD-1** through **HYD-4**, as listed above.	Less than

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.			Significant
The project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional			

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
sources of polluted runoff.			
Impact HYD-3d Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows. The project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows	Significant	Implementation of **Mitigation Measures HYD-1** through **HYD-4**, as listed above.	Less than Significant
Impact HYD-4 Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation. The project would not risk the release of pollutants	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
due to project inundation.			
Impact HYD-5 Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Significant	Implementation of Mitigation Measures **HYD-1** to **HYD-4**, as listed above.	Less than Significant
Land Use and Planning			
Impact LAN-1 Would the project physically divide an established community. The project would not physically divide an established community.	No Impact	No mitigation is required.	No Impact
Impact LAN-2 Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less than Significant	No mitigation is required. However, adoption of the Specific Plan and development of the Project will require the approval of the following discretionary actions by the city: ***Hitch Ranch Specific Plan (SP 2019-01)*** The Project requires the adoption of a Specific Plan as having been prepared in compliance with California Government Code Article 8, Section 65450 et seq., and all other applicable state and City policies. The approval of the Specific Plan would establish the framework for development of the land, including development standards, design	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
The project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.		guidelines, phasing, and infrastructure requirements. ***General Plan Amendment (GPA No. 2020-01)*** **Circulation Element**: Amend to include the extension of High Street to Gabbert Road. Under the current General Plan Circulation Element High Street terminates east of Hitch Ranch at Moorpark Avenue. The High Street roadway presently extends westerly approximately 700 feet beyond Moorpark Avenue to provide access to the United States Post Office. The additional extension to connect to the Hitch Ranch property will provide a secondary access point for the Post Office and improve east/ west circulation within the portion of the City north of the Union Pacific Railroad tracks. High Street will be built as a two-lane collector roadway with traffic calming roundabouts within the Specific Plan. The Circulation Element is also to be amended to reduce North Hills Parkway from a six-lane arterial roadway to a four-lane arterial roadway through the Hitch Ranch project, along with the deletion of a traffic signal at North Hills Parkway and Gabbert Road. The current General Plan Circulation Element also shows a conceptual alignment for Casey Road that would not be feasible due to the hilly landforms of the Hitch Ranch property. The current Circulation Element Casey Road conceptual alignment also terminates on the west end at an impractical location too near to the intersection with the currently-designated six-lane and signalized North Hills Parkway. With the proposed Circulation Element Amendment both Street "A" and Meridian Hills Drive will be added as Local Collector roads originating at Walnut Canyon Road on the north and terminating at High Street extension on the south. Casey Road will terminate on the west at Street "A". These General Plan Circulation Element Amendments will create additional routes of vehicle circulation through interconnection that was not anticipated at the time that the 1992 General Plan Circulation Element was last updated. **Land Use Element**: Amend to include the addition of 14 acres of Public Parkland, creating consistency with the existing City of Moorpark Park Master Plan. The three acres of Institutional Use referenced in the General Plan will be deleted. Amend for consistency between the State of California (HCD) approved General Plan Housing Element and the City's current Land Use Element of the General Plan to provide for 755 total dwelling units within the Specific Plan Area. In June 2009, the City Council authorized the Specific Plan and EIR for Hitch Ranch to analyze a maximum of 755 dwelling units. In 2014, the State of California approved the City of Moorpark Housing Element with 755 dwelling units within Hitch Ranch. The Specific Plan is based on the	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		755 dwelling unit land use plan. The Plan Area also includes a 23.44-acre parcel to be donated to the City for future development of up to 333 affordable multi-family housing units, this development is considered conceptual at this time, additional environmental analysis may be required, pursuant to Section 15162 of CEQA once this project is fully defined. ***Rezoning (ZC 2019-01)*** The project requires consideration of a change of zone from Agricultural-Exclusive (AE-40) to Hitch Ranch Specific Plan to establish consistency between the project Zoning and General Plan/Specific Plan land use designations; this includes retaining the designation of approximately 11 acres owned by Southern California Edison in the southwest corner of the Hitch Ranch Specific Plan as "Agricultural-Exclusive" (AE), consistent with City zoning of adjacent Electrical Transmission Corridor land owned by Southern California Edison. Approximately six acres of the Walnut Canyon School property on the eastern edge of the Hitch Ranch Specific Plan is to remain "Agricultural Exclusive" (AE) consistent with the existing City zoning of this land owned by the Moorpark Unified School District. The 23.44-acre City Donation Parcel will be realigned to the south, and will remain designated "RPD-20U-N-D", consistent with the City of Moorpark Zoning Map. ***Tentative Tract Map for Tract No 5708 (TTM 2019-01)*** The Tentative Tract Map would subdivide the approximately 277.30-acre site into lots to accommodate residential, recreational, drainage basins, and open space uses. The mapping would also include easements, dedications, roadways, utilities and define adjacent off-site improvements required for the project. ***Development Agreement (DA 2019-01)*** The agreement between the developer and a city that contains all of the terms and conditions for the maintenance, planning and development of a property, and legally governs the relationship between the agency and developer until the development has been completed. A development agreement will outline the parameters of development of the project site, and would insure orderly development of the project. ***Residential Planned Development Permit(s)*** Residential Planned Development Permit(s) would establish the physical site plan layout of	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		each individual Planning Area within the Specific Plan, including street and neighborhood amenity locations, community plot plans, conceptual landscape architecture, architectural elevations and preliminary floor plans.	
Noise			
Impact NOI-1 Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The project could cause a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Significant	**NOI-1** When construction operations occur within 100 feet of occupied residential areas and the Walnut Canyon Elementary School, the construction contractor(s) shall implement appropriate noise reduction measures. The following construction best management practices (BMPs) be implemented by contractors to reduce construction noise levels: • Two weeks prior to the commencement of construction, notification must be provided to surrounding land uses within 1,000 feet of a project site disclosing the construction schedule, including the various types of activities that would be occurring throughout the duration of the construction period. • Ensure that construction equipment is properly muffled according to industry standards and in good working condition. • Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, i.e., nearby off-site residences, and the faculty, staff, and students of Walnut Canyon Elementary School, where feasible. • Schedule high noise-producing activities, such as large earth-grading equipment that would generate over 85 dB(a), between the hours of 8:00 AM and 5:00 PM to minimize disruption to sensitive uses. • Schedule grading when school is not in session, to the extent feasible. • Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources. • Use electric air compressors and similar power tools rather than diesel equipment, where feasible. • Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 30 minutes. • Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the Moorpark	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		School District or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party.	
Impact NOI-2 Would the project result in the generation of excessive groundborne vibration or groundborne noise levels. The project could cause exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	Significant	**NOI-2** The construction contractors during grading and earthmoving activities shall adjust vibration amplitudes of the construction equipment used on site, such as by limiting the number of pieces operating in one location at the same time in areas where conditions would affect structures, sensitivity of vibration sensitive equipment, and/or human tolerance. **NOI-3** Prior to commencing grading and earthmoving activities, provide notification to Walnut Canyon School, and the residential land uses within 1,000 feet of the project at least 10 days in advance of construction activities that are anticipated to result in vibration levels above the 0.09 in/sec PPV thresholds, i.e., days when large bulldozers would be in use. **NOI-4** Storage, maintenance, and operation of earthmoving equipment on the construction site shall be as far from vibration-sensitive sites (i.e., Walnut Canyon School and residential uses surrounding the project site) as possible or practical; use wheeled or rubber-tracked equipment; and small pieces of equipment such as smaller bulldozers when possible.	Less than Significant
Population and Housing			
Impact POP-1 Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure) The project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
and businesses) or indirectly (for example, through the extension of roads or other infrastructure)			
Impact POP-2 Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	Less than Significant	No mitigation is required.	Less than Significant
Public Services			
Impact PS-1 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction	Significant	**FP-1:** To reduce emergency vehicle delays during construction, the applicant shall implement standard construction traffic control procedures, such as the use of flaggers, and signage showing traffic detour plans, haul routes, hours of operation, protective devices, warning signs and access to abutting properties would further reduce any potential impact.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives. The project could result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives			
Impact PS-2 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, need for new or physically altered police protection	Significant	**PP-1:** Open spaces shall be designed to facilitate easy viewing from patrol cars and by citizens on adjacent streets. To the extent possible, and without destroying the character of the open space areas, access streets and trails shall be incorporated into open spaces for occasional patrols and other emergency vehicles. In no event does this require an all-weather surface to be provided on open space trail areas located away from project roadways. **PP-2:** To reduce emergency vehicle delays during construction, the applicant shall implement standard construction traffic control procedures, such as the use of flaggers, and signage showing traffic detour plans, haul routes, hours of operation, protective devices, warning signs, and access to abutting properties would further reduce any potential impact.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives. The project could result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives			
Impact PS-3 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives of the school district. The project would not result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.			
Impact PS-4 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
service ratios, response times or other performance objectives. The project would not result in the need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.			
Recreation			
Impact REC-1 Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
facility would occur or be accelerated.			
Impact REC-2 Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment	Less than Significant	No mitigation is required.	Less than Significant
Transportation			
Impact TRA-1 Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The project could conflict with a program, plan, ordinance or policy addressing the circulation system, including transit,	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
roadway, bicycle, and pedestrian facilities.			
Impact TRA-2 Would the project conflict or be inconsistent with *CEQA Guidelines* section 15064.3(b). The project would not conflict or be inconsistent with CEQA Guidelines section 15064.3(b).	Less than Significant	No mitigation is required.	Less than Significant
Impact TRA-3 Would the project substantially increase hazards due to geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Less than Significant	No mitigation is required.	Less than Significant
Impact TRA-4 Would the project result in inadequate emergency access. The project would not result in inadequate	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
emergency access.			
Tribal Cultural Resources			
Impact TCR-1 Would the project cause a substantial adverse change in the significance of a tribal cultural resource. defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant	Significant	**CUL-1:** Due to the potential that archeological resources may be present on the project site, the City of Moorpark shall require a note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources, including prehistoric Native American artifacts. Construction personnel associated with earth moving equipment, drilling, grading, and excavating, shall be provided with basic training conducted by a qualified archaeologist, to be retained and compensated by the development team, with the approval of the City of Moorpark. Issues that shall be included in the basic training will be geared toward training the applicable construction crews in the identification of archaeological deposits, further described below. Training will include written notification of the restrictions regarding disturbance and/or removal of any portion of archaeological deposits and the procedures to follow should a resource be identified. The construction contractor, or its designee, shall be responsible for implementation of this measure. A Native American monitor shall be provided an opportunity to attend the pre-construction briefing if requested. A Native American monitor from a consulting Tribe under AB 52 monitor and a qualified archeologist, to be compensated by the development team, shall be available on an "on-call" basis during ground disturbing construction in native soil to review, identify and evaluate cultural resources that may be inadvertently exposed during construction. If archaeological remains or tribal cultural resources are uncovered, all construction activities within a 100-foot radius shall be halted immediately until a qualified archaeologist, in consultation with the Native American monitor, shall evaluate whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. If any previously undiscovered resources are found during construction the City of Moorpark Community Development Department shall be contacted, and the resource shall be evaluated for significance in terms of CEQA criteria by a qualified archaeologist. Prehistoric archaeological site indicators include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and handstones, and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire-affected stones. Historic period	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. The project could cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: a) Listed or eligible for listing in the California Register of Historical Resources, or in a local		site indicators generally include but are not limited to: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps). If City and the qualified archaeologist determine the resource to be significant under CEQA, they shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. Contingency funding and a time allotment sufficient for recovering an archeological sample or to employ an avoidance measure may be required. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a formal Archaeological Monitoring Plan (AMP) which will include a research design and archaeological data recovery plan for the resource. Development and implementation of the AMP will be determined by the City of Moorpark and treatment of any significant cultural resources shall be undertaken with the approval of the project applicant, and the City. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System [CHRIS]), and provide for the permanent curation of the recovered materials. The City of Moorpark and/or development team shall, in good faith, consult with the Fernandeño Tataviam Band of Mission Indians and consulting Tribes on the disposition and treatment of any recovered materials. A Monitoring Closure Report shall be filed with the City of Moorpark at the conclusion of ground disturbing construction if archaeological resources were encountered and/or recovered. After the find has been appropriately mitigated (as defined by State CEQA Guidelines Section 15126.4(b)), work in the area may resume. **CUL-2:** If human remains or funerary objects are unearthed during any activities associated with the project, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur within a 100-foot buffer of the find until the County coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC), the Fernandeño Tataviam Band of Mission Indians, and consulting Tribes. The NAHC will then contact the deceased Native American's most likely descendant, who will then serve as consultant on how to proceed with the remains (i.e., avoid, rebury)	

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
register of historical resources as defined in Public Resources Code section 5020.1(k), or b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			
Utilities and Service Systems			
Impact USWS-1 Would the project require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects. The project would not require or result in the	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.			
Impact USWS-2 Would the project Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. Sufficient water supplies are available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	Less than Significant	No mitigation is required.	Less than Significant
Impact USWW-1 Would the project require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. The project would not	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.			
Impact USWW-2 Would the project require in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments: The project would not result in a determination by the wastewater treatment provider which serves the project that it lacks adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	Less than Significant	No mitigation is required.	Less than Significant
Impact USSW-1 Would the project generate solid waste in excess of State or local standards, or in	Less than Significant	No mitigation is required. However, **Mitigation Measure SW-1** would be implemented to further reduce the less than significant project impacts related to solid waste.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals The project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.		**SW-1:** All Tract Map and RPD approvals shall require a waste management plan, consistent with Moorpark Municipal Code Chapter 8.36, prepared by the applicant. At a minimum, the waste management plan shall address the following: • Require that the demolition and construction wastes be recycled or re-used to the extent technically and economically feasible. • Require that recycled content building materials be used during construction to the extent technologically and economically feasible. • Conform to the City's Source Reduction and Recycling Element. The above listed mitigation measures shall be binding on all construction and operation phases of development within the Specific Plan area.	
Impact USSW-2 Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste. The project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Less than Significant	No mitigation is required.	Less than Significant
Impact UST-1 Would the project require or result in the relocation or construction of new or expanded	Less than Significant	No mitigation is required.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
telecommunication facilities, the construction or relocation of which could cause significant environmental effects. The project would not require or result in the relocation or construction of new or expanded telecommunication facilities, the construction or relocation of which could cause significant environmental effects.			
Wildfire			
Impact WIL-1 Would the project substantially impair an adopted emergency response plan or emergency evacuation plan. The project would not substantially impair an adopted emergency response plan or emergency evacuation plan.	Less than Significant	No mitigation is required.	Less than Significant
Impact WIL-2 Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants	Significant	**WF-1:** Pre-Construction Requirements. Vegetation management shall be conducted prior to the start of construction and throughout all construction phases by a qualified Ventura County Fire Department-approved third-party fuel modification zone inspector hired by the project applicant. Perimeter fuel modification shall be implemented and approved by the VCFD prior to bringing combustible materials on site. Adequate firebreaks at least 50 feet	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The project could, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.		wide shall be created around all grading, site work, and other construction activities in areas where there is flammable vegetation. Existing flammable vegetation shall be reduced by 50% on vacant lots upon commencement of construction. Firebreaks and fuel modification shall be implemented in accordance with Appendix 3.18, Fire Protection Plan, and approved by VCFD. The Project shall comply with the following risk reducing vegetation management guidelines: • All new power lines shall be underground for fire safety. Temporary construction power lines may be allowed in areas that have been cleared of combustible vegetation. Existing 16 KV power lines within the project may be undergrounded or relocated to the extent practical. • Caution must be used to avoid causing erosion or ground (including slope) instability or water runoff due to vegetation removal, vegetation management, maintenance, landscaping or irrigation. **WF-2:** In order to provide compensating structural protection in the absence of a 100-foot wide FMZ along the eastern property boundary, the structures along the entire eastern side of the development within Planning Area 3 shall include the following features for additional fire prevention, protection, and suppression: • The proposed Triplex structures along the eastern edge of the development within PA3 that are adjacent to existing homes off Casey Road, shall be constructed with multi-pane glazing with a minimum of one tempered pane, and a fire resistance rating of not less than 20 minutes when tested according to NFPA 257, or be tested to meet the performance requirements of State Fire Marshal Standard 12-7A-2 (see Figure 3.18-3). • The remaining Triplex structures along the eastern edge of the development within PA3 are exposed to natural vegetation. Depending on the timing of development of the proposed Senior Living project which currently is not developed, the remaining Triplex structures within the Hitch Ranch development along the eastern edge of the development shall implement either; a.) if the proposed Senior Living development begins construction prior to the Hitch Ranch Project development begins construction, then dual pane single tempered windows will be acceptable, or b.) if the Senior Living development has not begun construction prior to Hitch Ranch Project construction at this site, then dual pane, dual tempered windows will be required for the Hitch Ranch	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
		developments that are north of the existing homes off Casey Road up to proposed North Hills Parkway, exceeding the CBC Chapter 7A code requirement (see Figure 3.18-3). • Provide a noncombustible, 6-foot high concrete masonry unit (CMU) wall at the top of the manufactured slopes behind the units within PA3 along the eastern property boundary. These walls will be installed to function as heat-deflecting walls; vining plants will be established as landscape screening. **WF-3:** A fully irrigated landscape, planted with drought-tolerant, fire-resistive plants shall be implemented in accordance with VCFD Fire Hazard Reduction Program Plant Reference Guide (Appendix D of Appendix 3.18 of this EIR). No undesirable, highly flammable plant species shall be planted, as listed in the VCFD Prohibited Plant List (Appendix E of Appendix 3.18 of this EIR). The landscaping shall be routinely maintained and shall be watered by an automatic irrigation system that will maintain healthy vegetation with high moisture contents that would minimize ignition by embers from a wildfire. **WF-4:** The project HOA shall hire a qualified Ventura County Fire Department-approved third-party fuel modification zone inspector to provide annual inspections.	Less than Significant
Impact WIL-3 Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. The project would require the installation and maintenance of associated infrastructure (such as	Significant	Implement **Mitigation Measures WF-1 through WF-3**, as listed above.	Less than Significant

Project Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance After Mitigation
roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.			
Impact WIL-4 Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The project could expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	Significant	Implement **Mitigation Measures HYD-1** through **HYD-5** and **GS-1** through **GS-3**, as listed above.	Less than Significant

Sources: Impact Sciences, Inc., January 2022.

1.6 ALTERNATIVES TO THE PROPOSED PROJECT

In accordance with *State CEQA Guidelines* Section 15126.6, **Section 4.0, Alternatives** of this Draft EIR, Alternatives to the Proposed Project, analyzes a reasonable range of alternatives that could feasibly attain the basic objectives of the Project as listed in **Section 2.0 Project Description**, and evaluates the comparative merits of the alternatives to reduce the Proposed Project's significant and unavoidable impacts to Aesthetics and Air Quality.

This Draft EIR includes an evaluation of the following alternatives to the Proposed Project:

- Alternative 1 - No Project

  Section 15126.6(e) of the State CEQA Guidelines provides guidance on consideration of the no project alternative. When examining a development project on a specific piece of property, the No Project Alternative is the circumstance under which the Proposed Project does not proceed. Under a No Project scenario, the discussion compares the environmental effects of the property remaining in its current state against the environmental effects that would occur if the Proposed Project were approved and constructed.

  The No Project Alternative assumes that no development would occur on the approximately 277.30-acre Project site. Under the No Project Alternative, the Project site would remain in its present partially graded, highly disturbed condition. As described in **Section 2.0, Project Description**, a portion of the Project site has been graded and, therefore, is either in an otherwise disturbed state (e.g., building pads, dirt roadways), or is presently open space. Under the No Project Alternative, the potential project-related impacts associated with development of the Project site and described in **Section 3.0, Environmental Impact Analysis** would not occur.

- Alternative 2 – RPD 20U-N-D Alternative

  Alternative 2 assumes development in accordance with the City's current General Plan designation (Specific Plan 1) and Zoning regulations (AE, 1 dwelling unit/40 acres, and RPD 20U-N-D, 20 dwelling units/acre).

  This alternative would develop 468 Low and Very Low-Income Rental Units, and five (5) 40-acre parcels for the development of single-family units (473 total units) consistent with the current zoning. This Alternative would necessitate that the City purchase the approximately 26-acre portion of the Project site zoned RPD 20U-N-D from the Project Applicant to build out the infrastructure improvements and dwelling units for affordable housing project and detention basin. This is a reduction in 282 housing units and approximately 931 fewer residents.

This Alternative is evaluated to identify alternate development that could take place on the Project site without the application for any discretionary actions requiring approval from the City, as a practical result of the Project's non-approval.

- Alternative 3 – 415 Unit Reduced Visual Impact Alternative

  In an effort to reduce the Proposed Project's significant and unavoidable visual impacts, Alternative 3, 415 Unit Reduced Visual Impact, would include the construction of 415 single-family residential dwelling units, organized to avoid development on the most southerly, and publicly visible, areas of the Project Site. The Alternative would include 100 single-family units in Planning Area 1, 100 single-family units in Planning Area 2 east, 150 single-family units in Planning Area 3, and 65 single-family units in Planning Area 4 north. This alternative would provide infrastructure improvements in the form of detention basins (2, 2A, 2B, and 3), and the extension of North Hills Parkway up to Gabbert Road.

  No affordable housing units would be provided under this alternative, as that parcel would be developed with single family housing. Further, the approximately 6.77-acre public park area (proposed under the Project on the southern edge of the specific plan area, along the High Street frontage), would not be included under this alternative.

  In addition, Alternative 3 not would provide for the extension of High Street beyond "A" Street, or provide a connection to Meridian Hills Parkway. The Applicant would satisfy recreation/park space obligations solely through payment of Quimby fees.

  This Alternative would reduce the number of proposed dwelling units by 300 when compared to the Project. Alternative 3 would accommodate approximately 1,469 residents (calculated as 3.54 persons per dwelling), approximately 1,204 fewer residents.

The detailed description and analysis of each alternative provided in **Section 4.0, Alternatives** will allow decision makers to determine whether an alternative should be adopted in lieu of the Proposed Project. The analysis also considers an alternative location alternative that was rejected as infeasible, and which therefore was not studied in detail in the EIR.

As required by CEQA, this section identifies the environmentally superior alternative, which is considered to be Alternative 2, the RPD 20U-N-D Alternative.

1.7 REVIEW OF THE DRAFT EIR

The Hitch Ranch Specific Plan Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and other interested parties in accordance with *State CEQA Guidelines* Section 15086. The Notice of Completion for the Draft EIR was also distributed as required by CEQA. During the 45-day public review period, the Draft EIR, including the technical appendices, is available for review at the City of Moorpark City Hall at 799 Moorpark Avenue in the City of Moorpark, at the City of Moorpark Public Library at 699 Moorpark Avenue in the City of Moorpark, and on the City's Web site at www.ci.moorpark.ca.us.

Written comments on the Draft EIR should be addressed to:

Douglas Spondello, AICP, Planning Manager
City of Moorpark
Community Development Department
799 Moorpark Avenue
Moorpark, California 93021

Upon completion of the 45-day public review period, written responses to all significant environmental issues raised will be prepared and made available for review at least 10 days prior to consideration of the Final EIR before the Moorpark City Council. These environmental comments and their responses will be included as part of the Final EIR for consideration by decision makers for the project.

1.8 MITIGATION MONITORING

State law and the City of Moorpark CEQA procedures require the preparation of a mitigation monitoring and reporting program designed to ensure that mitigation measures adopted as conditions of approval to mitigate or avoid significant environmental effects are carried out. Mitigation measures identified within this Draft EIR have been described in sufficient detail to provide the necessary information to identify the party (or parties) responsible for carrying out mitigation, when it is to be implemented, and how the mitigation is to be monitored. A mitigation monitoring program will be considered by the City of Moorpark with the Final EIR.

2.0 PROJECT DESCRIPTION

INTRODUCTION

This EIR evaluates the environmental impacts of the Hitch Ranch Specific Plan (Plan). The Plan, including its implementing mechanisms (i.e., zone changes), is the Project being evaluated within this EIR. Within this EIR, the terms 'Plan' and 'Project' are both used to refer to the Proposed Project, similarly the term 'Plan area' is generally interchangeable with the term 'Project site'. The proposed Hitch Ranch Specific Plan provides policy guidance, design framework and development standards for the future development of a new residential community on the Hitch Ranch Specific Plan site. Development acreage, proposed uses, and standards are identified in the Specific Plan. It is anticipated that the Plan and the Draft Environmental Impact Report (EIR) will be relied upon by the City when considering a specific proposal(s) for development.

The Moorpark City Council will be required to certify the EIR as the Local Agency in accordance with the requirements of CEQA.

Subsequent to approval and adoption of the Specific Plan, General Plan Amendments, Zoning Amendment, Tentative Tract Map, Development Agreement, and Residential Plan Development permits, additional approvals, amendments, and permits may be required for implementation of development projects within the Plan Area.

This section of the Draft EIR describes the existing and surrounding conditions and evaluates the Plan area's regional location. Land uses surrounding the Plan area and their General Plan and Zoning designations are also disclosed. Additionally, this section includes a statement of the objectives of the Project and a general description of the Project's technical, economic, and environmental characteristics.

2.1 PROJECT LOCATION

Regionally, the Hitch Ranch Specific Plan Area is located in southeastern Ventura County in the City of Moorpark, between the Simi Hills and Little Simi Valley. Locally, the Project site is located in the rolling hills north of Poindexter Avenue, and west of Moorpark Avenue (State Route 23). Specifically, the site is approximately 277.30 acres, is located approximately 900 feet west of State Route 23, and extends to approximately 1,400 feet west of Gabbert Road. The regional location map (**Figure 2.0-1**, **Regional Location**) and site vicinity map **(Figure 2.0-2**, **Local Vicinity Map**) illustrate the Project site in both a regional and local context.

2.2 SURROUNDING LAND USE

Land uses surrounding the Hitch Ranch Specific Plan site, as well as their general plan and zoning designations are identified in **Table 2.0-1, Surrounding Land Uses**. Land uses surrounding the Plan area

include Walnut Canyon Elementary School and a few single-family homes immediately to the east. In addition, a post office, the City Civic Center, Aldersgate Housing Project site, and Essex site are located to the east, and the Moorpark downtown area about 0.25 mile further east. A mix of institutional, residential, light industrial and commercial land uses occurs to the south. Among the uses to the south are Poindexter Park and Chaparral Middle School. Single-family homes, at rural densities, and open space are located to the west. Residential development and open space uses are located to the north. A Ventura County Watershed Protection District concrete flood control channel (Walnut Canyon Channel) borders the southern site boundary. The Ventura County Transportation Commission/Union Pacific Railroad tracks are located just south of the flood channel. Poindexter Avenue, immediately south of the railroad right-of-way, is a two-lane local collector between Moorpark Avenue on the east and Gabbert Road to the west.

2.3 SITE CHARACTERISTICS

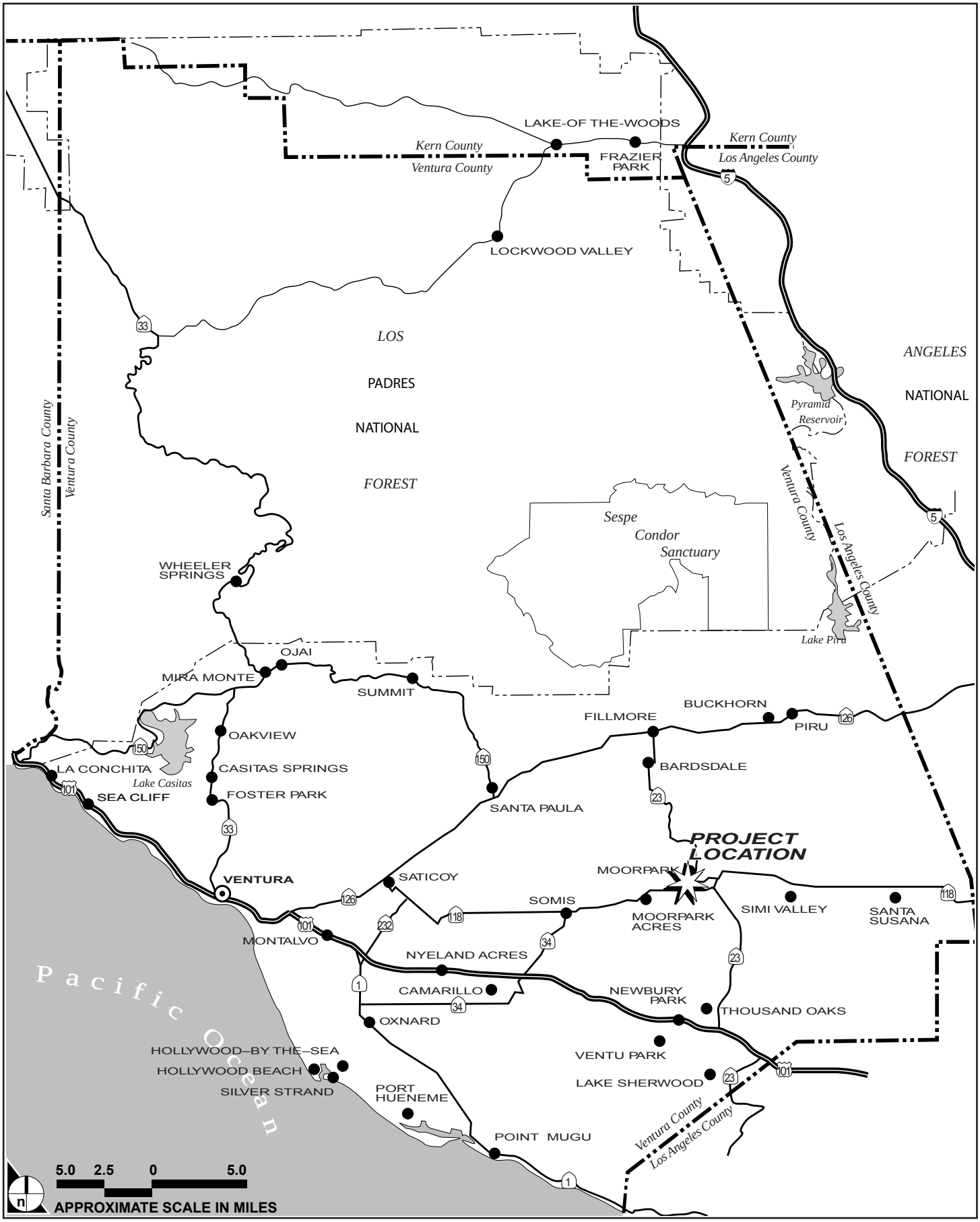
The Plan area is designated in the *City of Moorpark General Plan* Land Use Element as Specific Plan Area 1, with an Agriculture 1 overlay and has a zoning of Agricultural Exclusive (AE-40). A specific plan designation is provided to address large-scale projects, and is intended to provide a planning tool for the systematic implementation of the general plan.

The approximately 277.30-acre Plan area is predominately undeveloped and vacant. Its topography contains hills and is characterized by a series of moderately sloped northeast and southwest-trending ridge spurs with intervening southwest-draining valleys. Fires in 2003 and 2006 completely burned the Plan area. An east-to-west trending knoll occurs in the south-central portion of the site. The flat area along the southern site periphery represents the geomorphic transition from hillside area to the valley area of Moorpark. The site is visible from Los Angeles Avenue (State Route 118). East-west-trending hills through the middle of the site block views of much of the site's interior from passing motorist or residents on the south side of Poindexter Avenue. Additional north-south-trending hills at the eastern and western ends of the site block views of the site's interior from the surrounding area.

2.3.1 Existing On-Site Land Uses

The Project site is located in the west/central portion of the City of Moorpark, between the Simi Hills and the Little Simi Valley (see **Figure 2.0-1**). The topography of the site ranges from a low elevation of 475 feet above mean sea level (msl) at Gabbert Road, up to elevation 720 feet msl at its north edge. Soils are mainly comprised of alluvium in the low areas, along with weakly cemented bedrock on the hillsides and hilltops.

While predominately undeveloped, the site contains limited improvements to accommodate existing land uses and includes dirt and semi-paved roads, along with remnants of grazing use, including corrals, fences, and watering facilities for grazing animals.



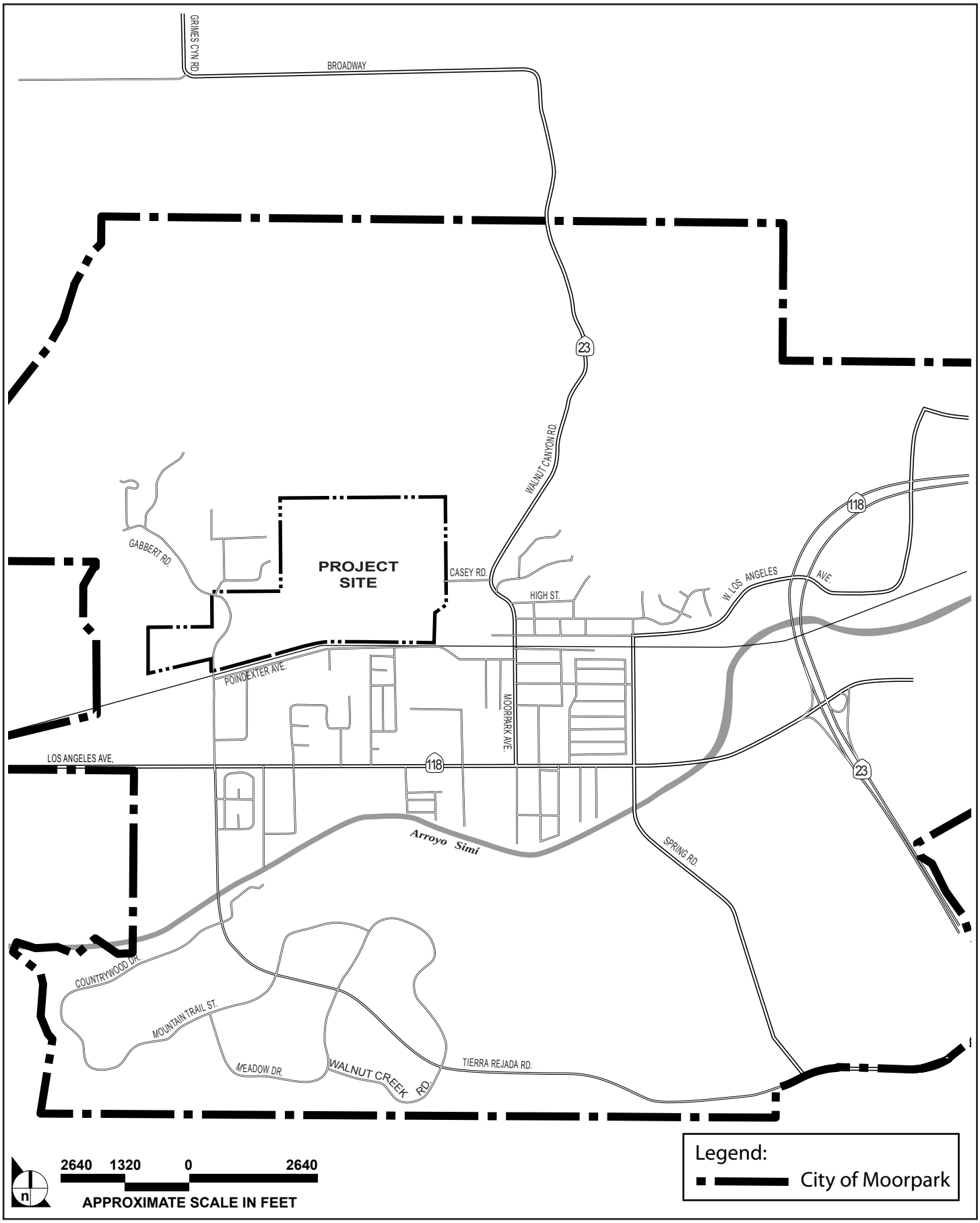
SOURCE: Impact Sciences, 2020

FIGURE **2.0-1**

IMPACT SCIENCES

Regional Location

1318.003•05/2020



SOURCE: Impact Sciences, 2020

FIGURE **2.0-2**

Project Vicinity

IMPACT SCIENCES

1318.003•05/2020

Table 2.0-1
Surrounding Land Uses

Direction (from Specific Plan Site)	Existing Land Use	Jurisdiction	General Plan Designation	Zoning Designation
North	Residential development	City of Moorpark	Low Density and Open Space	R-P-D [SF1]-1.48U,R-P-D-1.8U, O-S, R-E-1AC, R-E-5AC
South	Poindexter Park	City of Moorpark	Very High Density Residential (15 du/ac)	R-P-D-15U
	Chaparral Middle School	Moorpark Unified School District	School	R-E
	Concrete flood control channel (Walnut Canyon Channel	Ventura County Watershed Protection District	Specific Plan 1	A-E
	Light industrial	City of Moorpark	Light Industrial	M-1, R-E
	Railroad tracks	Ventura County Transportation Commission/Union Pacific Railroad	Medium Industrial, Light Industrial, Medium Density Residential (4 du/ac), Very High Density Residential (15 du/ac), School	R-E
	Commercial	City of Moorpark	Light Industrial, Medium Industrial, General Commercial, Utilities	M-1, M-2, C-P-D
	Residential	City of Moorpark	Medium Density Residential (4 du/ac), Very High Density Residential (15 du/ac)	R-1-8, R-P-D-8.9U
East	Walnut Canyon Elementary School	Moorpark Unified School District	Specific Plan 9	R-E
	Post office and civic center	City of Moorpark	Public/Institutional	I
	Vacant lot	City of Moorpark	Rural High Density Residential (4 du/ac)	R-E
	Open space and residential	City of Moorpark	Rural Low Density Residential (1 du/5 ac)	R-E-5AC[SF2][SF3]
West	Single family homes	City of Moorpark	Rural High Density Residential (1 du/ac), Rural Low Density Residential (1 du/5 ac)	R-E-1AC
	Vacant Land	City of Moorpark	Medium Industrial	M-2
	Vacant Land	City of Moorpark	Rural Low Density	A-E

du: dwelling unit
ac: acre
A-E: Agricultural Exclusive
C-P-D: Commercial planned Development
I: Institutional
M: Manufacturing
O-S Open Space
R-P-D: Residential Planned Development
R-E: Rural Exclusive

Source: City of Moorpark General Plan

Private, gated access is presently available from Poindexter Avenue on the south and from Casey Road on the east. The majority of the site lies on rolling hills east of Gabbert Road. The smaller balance of the site lies immediately west of Gabbert Road, and is comprised of two hills with an intervening valley area that widens out along the flood control channel at the south/southwest site boundary.

Eleven overhead electrical transmission lines, within two easements, traverse the western portion of the site in west-to-east and north-to-south alignments. These lines are part of Southern California Edison's (SCE) regional grid system, and they connect to the SCE Moorpark Substation located just southwest of the Plan area. Lines and voltage ranges include the local Gabbert 16-kilovolt (kV) line; the 66-kV Saugus-Moorpark-Santa Susana-Torrey line; the 220-kV Moorpark-Pardee No. 1, 2, and 3 lines; the 220-kV Moorpark-Santa Clara No. 1 and 2 lines; and the 220 kV Moorpark-Ormond Beach lines.

The Plan area historically was used for commercial grazing operations, and apricot production in the 1950s, and infrequent limited dry farming since then. More recent farming ventures failed commercially and no crop farming has occurred on site for more than a decade. Remnants of the former apricot farming operations burned down in 2003. Limited grazing operations still occur on site. County of Ventura records indicate that at least 15 water wells have been drilled on the site. A water tank is also present in the site's northeastern periphery.

Due to the many years of crop production and grazing, the ground surface has been mostly disturbed and very little native vegetation remains. The predominant plant communities are non-native grassland, with scattered California sagebrush-deerweed, coyote brush scrub, mulefat scrub, and non-native woodland communities. Several stands of mature eucalyptus and pepper trees occur at scattered locations on the site. There are no oak trees or permanent waterways on the site.

Storm runoff flows overland south to the Walnut Canyon Channel, a concrete box channel along the south site boundary. Flat areas along the east side of Gabbert Road and along the south site boundary, extending several hundred feet on either side of Gabbert Road, are within a 100-year flood hazard zone, as mapped by the Federal Emergency Management Agency (FEMA).

2.3.2 Property Ownership

The Hitch Ranch Specific Plan site is owned by Hitch Ranch Tenants in Common. The Plan encompasses seven parcels, totaling approximately 277.30 acres of land which together comprise the Project site. The Project site comprises of the following parcels:

Parcel 1: Assessor Parcel No: 511-0-020-11

Parcel 2: Assessor Parcel No: 511-0-020-13

Parcel 3: Assessor Parcel No: 511-0-020-16

Parcel 4: Assessor Parcel No: 511-0-020-17

Parcel 5: Assessor Parcel No: 511-0-020-18

Parcel 6: Assessor Parcel No: 511-0-020-19

Parcel 7: Assessor Parcel No: 511-0-200-24

2.4 OBJECTIVES OF THE PROPOSED PROJECT

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) include a statement of the objectives sought by a proposed project (Section 15124(b) of the *State CEQA Guidelines*). The objectives of the Plan are:

- Develop the Project site with a financially feasible, residential project that meets the residential needs of the City of Moorpark.
- Provide residential development consistent with 2021-2023 City Council Goal 1: Identify options and solutions to barriers for housing for all economic and age ranges.
- Create a new community neighborhood that would allow for residential development, while preserving natural resources and open space.
- Contribute to the enhancement of Downtown High Street by providing a new residential customer base, bicycle, vehicle, and pedestrian connections to the downtown.
- Provide a range of housing opportunities with varying densities, types, styles, prices, and tenancy characteristics (for sale versus rental).
- Help to achieve Housing Element goals for affordable housing.
- Avoid leapfrog development and accommodate projected growth in a location, which is adjacent to existing infrastructure, urban services, and community facilities.
- Locate housing near to jobs and in close proximity to transit in order to reduce Vehicle Miles Traveled.
- Transition development within the Project site with consideration for natural resource areas and open space.
- Provide development and transitional land use patterns that supports surrounding land uses.

- Designate sites for needed public facilities including flood control facilities, regional roadways, and trails.
- Provide residential opportunities to respond to economic and market conditions over several years.
- Provide a tax base to support public services associated with the proposed development to appropriately offset development impacts to city services.
- Retain open space and natural vegetation to exist as a buffer between on-site land uses and the surrounding resources to the extent possible while providing fire protection to the proposed land uses.
- Improve safe and adequate vehicle circulation within the regional area.
- Provide pedestrian, bicycle and equestrian trails that connect to the local and regional trail systems in the surrounding hills.
- Promote water conservation through use of drought-tolerant, fire-resistive, and native plants as appropriate.

2.5 TECHNICAL, ECONOMIC, AND ENVIRONMENTAL CHARACTERISTICS

The *State CEQA Guidelines* requires an EIR to provide "[a] general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities." (*State CEQA Guidelines* Section 15124(c)).

2.5.1 Land Uses

Development of the Proposed Project will occur through implementation of the Plan. The Plan sets the overall guidelines of the development including proposed land uses, design, density, and intensity. The Plan is designed as a mixed-density residential community that incorporates land uses, which would help to:

- satisfy a regional demand for housing and
- provide local recreational uses for new residents.

The following discussion describes land uses within the Plan, the relationship of individual land uses within the framework of the overall land plan, and infrastructure improvements necessary to implement the Plan.

Table 2.0-2, Hitch Ranch Specific Plan Proposed Land Use Data, provides a summary of the Plan in terms of the number of dwelling units, open space and public and private land and improvements, and **Figure 2.0-3, Specific Plan - Land Use Plan**, illustrates the proposed land uses.

The Plan provides for the arrangement of various land uses on the approximately 277.30-acre Plan area. Proposed land uses include several types/intensities of residential land uses, private recreation areas, one neighborhood park site, and flood-control facilities. Other improvements include storm drains, water mains, sanitary sewer lines, electric lines, natural gas lines, and telephone and cable lines. The Plan is divided into a series of planning areas as further described in **Table 2.0-2**. Build out of the Plan is anticipated to occur in phases as market conditions allow, over a period of 60 months, with an anticipated completion year of 2027.

HITCH RANCH SPECIFIC PLAN
LAND USE STATISTICAL SUMMARY - January 2022

Area / Description:	Land Use:	Acres:	Dwelling Units	%
Planning Area 1	SFD Units & Private Streets	25.21	79	46
	Natural Open Space	17.33		31
	Manufactured Slopes	12.87		23
	Subtotal	**55.41**	**79**	**100**
Planning Area 1A	Recreation Lot	3.12		51
	Manufactured Slopes	2.96		49
	Subtotal	**6.08**		**100**
Planning Area 2	SFD Units & Private Streets	32.27	188	52
	Natural Open Space	7.40		12
	Manufactured Slopes	18.55		30
	Passive Recreation Lot	1.55		2
	Water Quality Treatment (Lot AE)	2.33		4
	Subtotal	**62.10**	**188**	**100**
Planning Area 3	SFD Units & Private Streets	17.28	160	53
	MFD Units & Private Streets	8.93	93	27
	Open Space	1.60		5
	Manufactured Slopes	4.06		12
	Recreation Lot	0.93		3
	Subtotal	**32.80**	**253**	**100**
Planning Area 4	Multi-family Dwelling Units	8.28	235	72
	Manufactured Slopes	3.39		28
	Subtotal	**11.67**	**235**	**100**
Open Space	Open Space (Lots W-Y)	28.78		100
	Subtotal	**28.78**		**100**
Public Facilities	Public Streets	31.66		56
	VCWPD Easement (Lot AD)	2.68		5
	Detention Basin 2 (Lot Z)	5.94		10
	Detention Basin 2A (Lot H)	3.67		6
	Detention Basin 2B (Lot V)	6.30		11
	City Park (Lot AE)	6.77		12
	Subtotal	**57.02**		**100**
	TOTAL	**253.86**		
	Market Rate Units		**620**	
	Affordable Apartments		**135**	
Lot 378	City Donation Parcel (Basin 3Park=7.23 Ac.)	23.44		100
	GRANDTOTAL	**277.30**		

SOURCE: Comstock Homes, 2022.

FIGURE **2.0-3**

IMPACT SCIENCES

Specific Plan Proposed Land Use Map

1318.004•01/2022

Table 2.0-2
Hitch Ranch Specific Plan Proposed Land Use Data

Area	Land Use		Acres	Dwelling Units (du)	Percentage of Land Use
Planning Area 1	SFD Units & Private Streets		25.21	79 du	46
(Lots 1-79, A, B, E-G, S1-S4)	Natural Open Space		17.33		31
	Manufactured Slopes		12.87		23
		Subtotal	**55.41**	**79 du**	**100**
Planning Area 1A	Recreation Lot		3.12		51
(Lots C & D)	Manufactured Slopes		2.96		49
		Subtotal	**6.08**		**100**
Planning Area 2	SFD Units & Private Streets		32.27	188 du	52
(Lots 80-267, J-U, AA-AC, S5-S15)	Natural Open Space		7.40		12
	Manufactured Slopes		18.55		30
	Passive Recreation Lot		1.55		2
	Water Quality Treatment (Lot AC)		2.33		4
		Subtotal	**62.10**	**188 du**	**100**
Planning Area 3	SFD Units & Private Streets		17.28	160 du	53
(Lots 268-376, I, AF-AJ, S16-S28)	MFD Units & Private Streets		8.93	93 du	27
	Natural Open Space		1.60		5
	Manufactured Slopes		4.06		12
	Recreation Lot		0.93		3
		Subtotal	**32.80**	**253 du**	**100**
Planning Area 4	Multi-Family Dwelling Units		8.45	235 du	72
(Lot 377)	Manufactured Slopes		3.22		28
		Subtotal	11.67	**235 du**	**100**
Open Space	Open Space		**28.78**		**100**
(Lots W-Y)					
Public Facilities	Public Streets		31.66		56
	VCWPD Easement (Lot AD)		2.68		5
	Detention Basin 2 (Lot Z)		5.94		10
	Detention Basin 2A (Lot H)		3.67		6
	Detention Basin 2B (Lot V)		6.30		11
	City Park (Lot AE)		6.77		12
		Subtotal	**57.02**		**100**
		Project Total	**253.86**	**755 du**	
Lot 378	**City Donation Parcel** (Basin 3 Park = 7.23 acres)		**23.44**		**100**
		Grand Total	**277.30**		

Note:

- *The number of units within any Planning Area may be refined during the course of subsequent City review and approvals, provided that the total number of units within the Project does not increase beyond the total shown in this table.*

Source: Development Planning Services / Comstock Homes, June 2021

2.5.2 Residential Development

Residential uses constitute the primary component of the Plan. As proposed, implementation of the Plan would result in the development of 755 dwelling units. **Table 2.0-2, Hitch Ranch Specific Plan Land Use Data**, provides a summary of the proposed residential land use types and approximate acreages devoted to each land use type. Proposed residential uses would consist of 755 dwelling units on approximately 92 gross acres including approximately 427 single-family units, and approximately 328 multi-family units. Of the approximately 328 multi-family units, approximately 135 units would be affordable apartment units. Single-family structures would be one and two stories in height, while multi-family structures would be two and three stories in height. The densities for dwelling units within each planning area range from 1.43 to 20.00 (gross) dwelling units per acre. Single-family dwelling units are proposed for Planning Areas 1, 2 and 3, and multi-family dwelling units are proposed for Planning Areas 3 and 4.

To be consistent with the City of Moorpark's General Plan policies regarding affordable housing, the Applicant will donate an approximately 23.44-acre graded development pad and stubbed utility services to the City, so that the City of Moorpark may pursue development of affordable multi-family housing under a separate process at a future date. The Plan also provides for up to 135 affordable housing units in Planning Area 4; provision of affordable housing would be negotiated in the Development Agreement to be consistent with the Housing Element of the General Plan.

2.5.3 Parks and Recreational Uses

The Plan includes private recreation areas, greenbelts, and public multi-use trails connecting to local and regional trails in the surrounding hills.

As discussed below, an approximately seven-acre public park area is proposed in the southern edge of the Plan area, along the High Street frontage. An approximately seven acre improved passive public park[1] is included within the Basin 3 area.

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1 In this context, "passive" denotes a park that does not have sports fields or other facilities, such as sports courts or restrooms.

2.5.4 Open Space

Open Space

The Plan identifies a variety of open space types. The total combined open space areas within the Plan is greater than 75 acres, or 27 percent of the total site, exceeding the City of Moorpark Specific Plan requirement of 25 percent. Natural open space as defined in the Plan, is an undeveloped area, which would remain in its existing condition. A portion of the Ventura County Fire Protection District required 200-foot fuel modification zone would occur within natural open space areas in order to protect adjacent and on-site structures. Approximately 55 acres of natural open space is proposed by the Project. Approximately six additional acres of private active recreational open space would be provided consisting of Hitch Ranch Homeowners Association (HOA) accessible recreation centers, pools, greenbelts, and turf areas. The remaining open space, as described below in sections 2.5.5 and 2.5.6, would be available for public use and includes approximately 14 acres of public parkland, evenly divided between active and passive park improvements. An additional approximately 29 acres of re-vegetated retention basins and water quality treatment areas are located throughout the site and provide additional open space and landscaped vistas.

Manufactured Slopes

Approximately 41.74 acres within the Plan are designated as manufactured slopes. Where possible and there is available area to provide for contour grading, the applicant would provide for such grading. The areas that are characterized as graded slopes are adjacent to proposed residential uses in Planning Areas 1 through 4. It is anticipated that these areas would be landscaped with drought-tolerant plants, primarily native or appropriate adaptive plant species. Landscaping would not only serve to stabilize graded slopes (to prevent erosion), but also soften the visual aspect of the Project due to site grading for building pads and roadways.

2.5.5 Public Facilities

Some required portions of the Ventura County Watershed Protection District (previously the Ventura County Flood Control District) flood-control master plan facilities are incorporated as part of the Plan; these facilities would serve the Plan area and provide flood control for the local drainage basin (i.e., Gabbert and Walnut Canyons). These facilities were identified as part of the *Gabbert and Walnut Canyon Channels Flood Control Deficiency Study*, which was prepared for the Ventura County Flood Control District (dated March 1997). As proposed, the Plan includes a total of five retention basins making up approximately 29.91 acres, or approximately 10.8 percent of the Plan area. Basins 2A (approximately 3.67 acres), and 2B (approximately 6.30 acres) will be north of North Hills Parkway, in Planning area 1. Basin 3 (approximately 7.23 acres) will be located along the Walnut Canyon Channel along the southern border of the Plan area, and the second

regional basin (Basin 2 – approximately 5.94 acres) will be constructed in the arroyo adjacent to Gabbert Road and the Walnut Canyon Channel within the Plan area. The last basin will serve as a water quality treatment basin (Lot AE – approximately 6.77 acres) and will be located on the southwestern side of the Plan area. There will be four debris basins (DB1A [approximately 0.25 acre], DB1B [approximately 0.05 acre], DB2 [approximately 0.20 acre], and DB3 [approximately 0.15 acre]) located on the northern edge of the Plan area. All basins are designed as soft-bottom facilities, which would ultimately drain to the Ventura County Watershed Protection District (VCWPD) channel (Walnut Canyon Channel) located along the southern perimeter of the Plan area. It is anticipated that these basins would be operated and maintained by the Hitch Ranch HOA and/or a Community Facilities District (CFD). Within the Walnut Canyon Channel concrete channel the flood-control master plan facilities design concept anticipates both a high-flow diversion structure into the Hitch Ranch Basin 3 along with several points of connection for discharge for treated water from the Project basins back into the Walnut Canyon Channel. The Hitch Ranch southern property line runs approximately down the middle of the Walnut Canyon Channel concrete channel, with the balance of the channel width being offsite to the south. Construction of the diversion structure and points of connection require both VCWPD and Army Corps of Engineers approval prior to the start of construction.

In addition to the previously identified drainage basins, the Plan includes an approximately 2.68-acre VCWPD easement along the southern boundary (Lot AD).

2.5.6 Recreational Uses – Public Parkland

Approximately 6.77 acres of onsite public parkland is proposed along the southern edge of the Plan area, along the High Street frontage. This designated public park land would be dedicated to the City of Moorpark and would meet the requirements of the General Plan for dedication to allow development of park uses and community service centers. The specific improvements will ultimately be determined by the negotiated Development Agreement. An additional approximately 7.23 acre improved passive public park area is included within the offsite Basin 3.

2.5.7 Circulation System

Regional access to the Plan area would be provided by Los Angeles Avenue (SR-118) and Moorpark Avenue (SR-23). Los Angeles Avenue provides access east to the SR-23 and SR-118.

Components of the access plan are illustrated on **Figure 2.0-3**. All "named" streets on **Figure 2.0-3** (including "A" Street) would be public and all other streets would be private. The primary access to the Plan area would be provided via extensions of Casey Road and High Street to the west and a connection to North Hills Parkway, a planned arterial. The proposed Plan incorporates several roadway improvements

in addition to roadways internal to each Planning Area. These roadways include (1) dedication of right-of-way and construction for North Hills Parkway; (2) dedication of the Casey Road right-of-way and roadway construction; (3) dedication of the "A" Street right-of-way and roadway construction, (4) dedication of the on-site High Street right-of-way and on-site and off-site roadway construction, (5) dedication of Meridian Hills Drive right-of-way and roadway construction; and (6) dedication of the Gabbert Road right-of-way and roadway construction.

Arterial Roadway

As indicated in the Moorpark's General Plan Circulation Element, North Hills Parkway has been envisioned as a four-lane roadway that would extend from the interchange of SR 118 and Princeton Avenue west through the central portion of the Plan area to Los Angeles Avenue west of Gabbert Road. The Plan would provide a four-lane road and consists of two vehicle-travel lanes plus bike lanes ~~(~~in each direction~~)~~ with a total right-of-way corridor dedication width of 200 feet with controlled access and restricted parking. A 14-foot wide landscaped median is provided. The roadway includes a 14-foot wide ultimate parkway section. The north side of the parkway shall provide for a 12-foot wide multi-use trail. Dedicated right and left turn lanes will be provided where needed.

Rural Collector Roads

Rural Collector Roads within the Plan area include Gabbert Road, "A" Street, and Meridian Hills Drive. These roads provide two- to four-travel lanes (one or two in each direction), with optional 12- to 14-foot raised landscaped median, with a typical right-of-way width of 80 to 104 feet and a curb-to-curb pavement width of 40 to 52 feet; shoulder widths vary and contain 5- to 10-foot landscape parkway, and 5-foot sidewalks. In hillside areas, the minimum dimension may be allowed, but graded shoulders are required, and on-street parking is prohibited. To provide extra safety a decomposed granite multi-purpose trail is proposed for joint use by equestrians, bicyclists and pedestrians in specific locations.

As proposed, Gabbert Road would become a four-lane arterial roadway constructed within an approximately 98-foot right-of-way from the point of connection with High Street, north of the Union Pacific Railroad tracks and continuing to North Hills Parkway. Northerly of North Hills Parkway Gabbert Road would taper back to existing width at the northwestern boundary of Hitch Ranch.

Meridian Hills Drive would be extended to the south from the existing terminus within the Meridian Hills community into Hitch Ranch with a roundabout connection to "A" Street at North Hills Parkway. From the roundabout to North Hills Parkway "A" Street will be a divided road with a landscaped median, consistent with the existing Meridian Hills Drive street section.

"A" Street would serve as a connector between North Hills Parkway, Poindexter Avenue, and the future extension of High Street. South of North Hills Parkway this two-lane local collector roadway would be constructed within an approximately 80-foot right-of-way, and would provide direct site access to Planning Areas 2, 3, and 4. The "A" Street intersection with North Hills Parkway will provide full access (four-way with all turns permitted) to the site.

Local Collector Roads

Existing Local Collectors adjacent to the Plan area are Casey Road and High Street. These roads provide two travel lanes (one in each direction), with a right of way width of 60 to 75 feet and a curb-to-curb pavement width of 40 to 48 feet; 10-to 19 foot shoulders containing an 8-foot landscaped parkway and a 5-foot sidewalk are typically provided. Casey Road is an east-to-west roadway providing a frontage access road into the Plan area and connecting to areas to the east.

Casey Road would be extended from its current terminus east of the Plan area adjacent to Walnut Canyon School to provide access to Planning Areas 2, 3, and 4 and would be widened to provide for a right-of-way up to 76 feet in width from approximately 450 feet west of Walnut Canyon Road west through the Plan area to "A" Street. Casey Road shall also serve as an entry corridor into the site.

High Street would be extended from its current terminus east of the Plan area adjacent to the U.S. Post Office along the northern side of the Union Pacific railroad tracks to Gabbert Road.

These roadways would be one lane in each direction.

Neighborhood (Local) Streets

Neighborhood Streets are streets that are private streets internal to the Plan area, connecting to Arterials and Rural and Local Collectors. Neighborhood streets provide access to residential and recreational land uses. These streets typically have a right-of-way width of 56 to 60 feet and a curb-to-curb pavement width of 36 to 40 feet with 10-foot shoulders containing a 5-foot landscape parkway and a 5-foot sidewalk.

Neighborhood streets are located and detailed with the following intentions:

- Provide quiet, safe and attractive frontages for residential lots;
- Provide safe and convenient routes for pedestrians from homes to recreational areas; and
- Accommodate low volume vehicular traffic and bicycles at slow speeds.

The precise location shall be determined through the approval of subdivision maps. Neighborhood streets may or may not be gated. If they are gated, they are subject to precise design approval by the City of Moorpark. Streets internal to Planning Areas 3 and 4 may have private drives and street widths less than 36 feet. The precise width of these streets shall be determined through the approval of subdivision maps for these Planning areas. Traffic calming devices such as chokers may be incorporated in street design, subject to meeting City Public Works and Ventura County Fire Department design standards.

The circulation upgrades not only benefit the proposed Hitch Ranch project, but also provide a public benefit to the surrounding communities and elementary school by providing additional access to these existing one-way in and out communities. Access to the Gabbert Canyon neighborhood to the northwest will be improved by expanding Gabbert Road and by providing a new easterly evacuation route by extending High Street from its current terminus east of the Project site across the southern boundary of the Project site north to the railroad track to Gabbert Road. The Meridian Hills neighborhood to the northeast will be improved by providing a southerly evacuation route through Hitch Ranch by extending Meridian Hills Drive from the existing terminus and connecting it to "A" Street at North Hills Parkway. Finally, Walnut Canyon Elementary school to the east is currently accessed by a dead end, two-lane road off Moorpark Avenue. There presently are no evacuation routes or secondary vehicle access roads to the school. However, the Proposed Project would provide an additional evacuation route through the Hitch Ranch community by extending Casey Road from its terminus east of the Plan area to continue west and link to "A" Street.

For a more detailed description of the local and regional circulation systems, please see **Section 3.15, Transportation/Circulation**, of this EIR.

2.5.8 Infrastructure

Natural gas and electrical would be provided by extending existing lines, which serve existing urban uses to the west, east, and south of the site. The size and location of lines would be determined when individual tract maps are prepared for each phase of the Project. A more detailed analysis of these services is provided in **Section 3.17, Utilities and Service Systems**.

Water service would be provided by the Ventura County Waterworks District No. 1. Domestic water service would be connected at the site boundary at Meridian Hills Drive, High Street, Poindexter Avenue and Casey Road and be pressure-looped through the Plan area. Currently, there are 8-inch water mainlines in Poindexter Avenue, Casey Road and Gabbert Road; these lines would be inter-connected to serve the Plan area. The precise configuration of the water service system would be determined when individual

tract maps are prepared for each phase of the Project. For a detailed discussion of water service, please refer to **Section 3.17, Utilities and Service Systems**.

Sanitary sewer service will be provided by Ventura County Waterworks District No. 1 (VCWWD1) by connecting to their existing sewer line in Gabbert Road. To connect to VCWWD1's facilities, the onsite sewer main will run perpendicular to and beneath the Walnut Canyon storm channel and the Union Pacific Railroad/Metro Rail tracks at Gabbert Road. No interference in rail operations is anticipated as the sewer main would be installed utilizing a bore pit and jacking method of installation in order to connect at the intersection of Gabbert Road and Poindexter Avenue. To accommodate the anticipated flows from the Project, the existing 8-inch and 12-inch diameter sewer main on Gabbert Road and on Los Angeles Avenue would require upsizing to a 15-inch diameter sewer line. Upsizing would occur from the intersection of Gabbert Road and Poindexter Avenue to the north side of the intersection of Los Angeles Avenue and Mira Sol Drive.

The configuration of the sewage collection system will be determined at the time individual tract maps are prepared for each phase of the Project. A detailed analysis of sewer service is provided in **Section 3.17, Utilities and Service Systems**.

The Project Applicant will enter into an agreement with the Ventura County Waterworks District to fund recycled water infrastructure within the District. This funding will be used for increased recycled water infrastructure to offset irrigation of common areas such as open space and landscaped areas.

In accordance with Section 150.1(b)14 of the 2019 Building Energy Efficiency Standards, all new residential uses of three stories or less would install solar photovoltaic (PV) panels that generate an amount of electricity equal to their expected electricity usage. In addition, although not required by Title 24, the Project would include a rooftop solar system sized at approximately 112 kilowatts for the proposed four-story building that would accommodate the electricity needs of the approximately 135 affordable apartment units.

2.5.9 Development Implementation

It is expected that the Project would be implemented in conformance with the regulations and guidelines defined in the Plan. As proposed, it is anticipated that the Plan would be completed in six phases beginning in 2022. As presented in **Table 2.0-3, Residential Project Buildout,** construction is projected to take place over approximately 60 months, commencing with mass grading and the installation of the planned infrastructure (i.e., detention basins, road extensions and widenings, underground utilities, and connections to the Ventura County Water Protection District Easement), followed by with an estimated 105 to 250 units built per year during phases 2-6.

Table 2.0-3
Residential Project Buildout

Phase	Year	Land Use Type	Construction Activity	Planning Area
1	2022-2023	Various	Grading and Infrastructure	all
2	2023-2024	Residential, Recreation	250 du	3 & 4
3	2023-2024	Various	Grading and/or Infrastructure	1, 2, & Open Space
4	2024-2025	Residential, Recreation	200 du	1-4
5	2025-2026	Residential, Recreation	200 du	1-4
6	2026-2027	Residential, Recreation	105 du	1-4
TOTAL		**--**	**755 dwelling units.**	**--**

Source: Development Planning Services / Comstock Homes, May 2020

2.5.10 Grading

As shown in Table 2.0-3, the construction period for the Project is currently anticipated to begin in June 2022 and last approximately 60 months with construction of the Project being completed by approximately June of 2027. Implementation of the Plan is expected to occur in six phases.

Grading of the Plan area would involve the cut and fill and would primarily occur during the Phase 1 and Phase 2 construction phases. Phase 1 would involve approximately 3.9 million cubic yards of earth and Phase 3 would involve movement of approximately 1.5 million cubic yards of earth material. Maximum cut slopes would be approximately 70 feet high, and maximum fill areas would be approximately 61 feet high. Approximately 198.7 acres (72 percent) of the Plan area would be graded under of implementation of the proposed Specific Plan. Approximately 55.2 acres (20 percent) of the Plan area, not including the City Donation Parcel, would remain undisturbed. Of the total graded area, approximately 29 acres would be returned to open space in the form of detention basins and water quality basins, ultimately providing approximately 73.44 total acres (approximately 26 percent) of natural and detention basin open space within the Specific Plan Area.

2.5.11 Economic Characteristics

It is the intent of the Project Applicant to provide a mix of residential uses. In light of this, the Applicant's goal is to construct a financially viable project while at the same time provide a variety of housing opportunities for the City of Moorpark.

The average household size for the City of Moorpark is approximately 3.3 persons. Therefore, construction and occupation of the residential component of the Project would result in a theoretical population increase of approximately 2,492 persons. A more detailed discussion of population/employment issues is provided in **Section 3.12, Population and Housing**.

2.6 INTENDED USES OF THE EIR

The following lead agency and responsible and trustee agencies are expected to use the information contained in this EIR for the consideration of approvals related to and involved in the implementation of the Specific Plan.

2.6.1 City of Moorpark Project Approval Process

This EIR will be used by the Planning Commission and City Council of the City of Moorpark in their consideration of the Proposed Project which consists of General Plan Amendment No. 2020-01, Zone Change No. 2019-01 Development Agreement No. 2019-01, Specific Plan No. 1 / 2019-01, and Tentative Subdivision Map No. 2019-01 for Tract No 5708. = Subsequent entitlements requiring approval from the City would include, but are not limited to, final maps, residential planned development permits, and, potentially, conditional use permits.

Certification of the Hitch Ranch Specific Plan Final Environmental Impact Report

Any approval actions related to the Project would first require the acceptance and certification of an environmental document as having been prepared in compliance with CEQA, *State CEQA Guidelines*, and City of Moorpark CEQA Guidelines.

Hitch Ranch Specific Plan (SP 2019-01)

The Project requires the adoption of a Specific Plan as having been prepared in compliance with California Government Code Article 8, Section 65450 et seq., and all other applicable state and City policies. The approval of the Specific Plan would establish the framework for development of the land, including development standards, design guidelines, phasing, and infrastructure requirements.

General Plan Amendment (GPA No. 2020-01)

The General Plan Amendment updates the existing General Plan map for the Hitch Ranch Specific Plan area (General Plan designation SP1) by designating the approximately 23.44-acre City Donation Parcel as "Very High Density Residential" (VH), consistent with the City of Moorpark Ordinance Number 421 and Zoning Ordinance Amendment Number 2013-03, adopted September 11, 2013. The Circulation Element is also amended with the extension of High Street to Gabbert Road, the revision of North Hills Parkway from a six-lane arterial roadway to a four-lane arterial roadway and deletion of a traffic signal at North Hills Parkway and Gabbert Road. **Figure 2.0-4 City of Moorpark General Plan Existing and Proposed** illustrates these updates.

Adoption of the Specific Plan would require three Amendments to elements of the City of Moorpark General Plan. The Amendments are:

- **Circulation Element**: Amend to include the extension of High Street to Gabbert Road. Under the current General Plan Circulation Element High Street terminates east of Hitch Ranch at Moorpark Avenue. The High Street roadway presently extends westerly approximately 700 feet beyond Moorpark Avenue to provide access to the United States Post Office. The additional extension to connect to the Hitch Ranch property will provide a secondary access point for the Post Office and improve east/west circulation within the portion of the City north of the Union Pacific Railroad tracks. High Street will be built as a two-lane collector roadway with traffic calming roundabouts within the Specific Plan. The Circulation Element is also to be amended to reduce North Hills Parkway from a six-lane arterial roadway to a four-lane arterial roadway, along with the deletion of a traffic signal at North Hills Parkway and Gabbert Road. The current General Plan Circulation Element also shows a conceptual alignment for Casey Road that would not be feasible due to the hilly landforms of the Hitch Ranch property. The current Circulation Element Casey Road conceptual alignment also terminates on the west end at an impractical location too near to the intersection with the currently-designated six-lane and signalized North Hills Parkway. With the proposed Circulation Element Amendment both "A" Street and Meridian Hills Drive will be added as Local Collector roads originating at Walnut Canyon Road on the north and terminating at High Street extension on the south. Casey Road will terminate on the west at "A" Street. These General Plan Circulation Element Amendments will create additional routes of vehicle circulation through interconnection that was not anticipated at the time that the 1992 General Plan Circulation Element was last updated.

- **Land Use Element**: Amend to include the addition of 14 acres of Public Parkland, creating consistency with the existing City of Moorpark Park Master Plan. The three acres of Institutional Use referenced in the General Plan will be deleted.

Amend for consistency between the State of California (HCD) approved General Plan Housing Element and the City's current Land Use Element of the General Plan to provide for 755 dwelling units within the Specific Plan Area. In June 2009, the City Council authorized the Specific Plan and EIR for Hitch Ranch to analyze 755 dwelling units. In 2014, the State of California approved the City of Moorpark Housing Element with 755 dwelling units within Hitch Ranch. The Specific Plan is based on the 755 dwelling unit land use plan. The Specific Plan Area also includes an approximately 23.44 acre parcel to be donated to the City for future development of up to 333 affordable multi-family housing units, this development is considered conceptual at this time, additional environmental analysis may be required, pursuant to Section 15162 of CEQA once this project is fully defined.

Rezoning (ZC 2019-01)

The project requires consideration of a change of zone from Agricultural-Exclusive (AE-40) to Hitch Ranch Specific Plan to establish consistency between the project Zoning and General Plan/Specific Plan land use designations; this includes retaining the designation of approximately 11 acres owned by Southern California Edison in the southwest corner of the Hitch Ranch Specific Plan as "Agricultural-Exclusive" (AE), consistent with City zoning of adjacent Electrical Transmission Corridor land owned by Southern California Edison. Approximately six acres of the Walnut Canyon School property on the eastern edge of the Hitch Ranch Specific Plan is to remain "Agricultural Exclusive" (AE) consistent with the existing City zoning of this land owned by the Moorpark Unified School District. The approximately 23.44 acres City Donation Parcel will be realigned to the south, and will remain designated "RPD-20U-N-D", consistent with the City of Moorpark Zoning Map. **Figure 2.0-5**, **City of Moorpark Zoning Existing and Proposed** illustrates these updates.

Tentative Tract Map for Tract No 5708 (TTM 2019-01)

The Tentative Tract Map would subdivide the approximately 277.30-acre site into lots to accommodate residential, recreational, drainage basins, and open space uses. The mapping would also include easements, dedications, roadways, utilities, and define adjacent off-site improvements required for the Project.

Development Agreement (DA 2019-01)

The agreement between the developer and a city that contains all of the terms and conditions for the maintenance, planning and development of a property, and legally governs the relationship between the agency and developer until the development has been completed.

A development agreement will outline the parameters of development of the Project site, and would insure orderly development of the Project.

Residential Planned Development Permit(s)

Residential Planned Development Permit(s) would establish the physical site plan layout of each individual Planning Area within the Specific Plan, including street and neighborhood amenity locations, community plot plans, conceptual landscape architecture, architectural elevations and preliminary floor plans.

SOURCE: DPS, August 2021.

FIGURE **2.0-4**

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City of Moorpark General Plan Existing and Proposed

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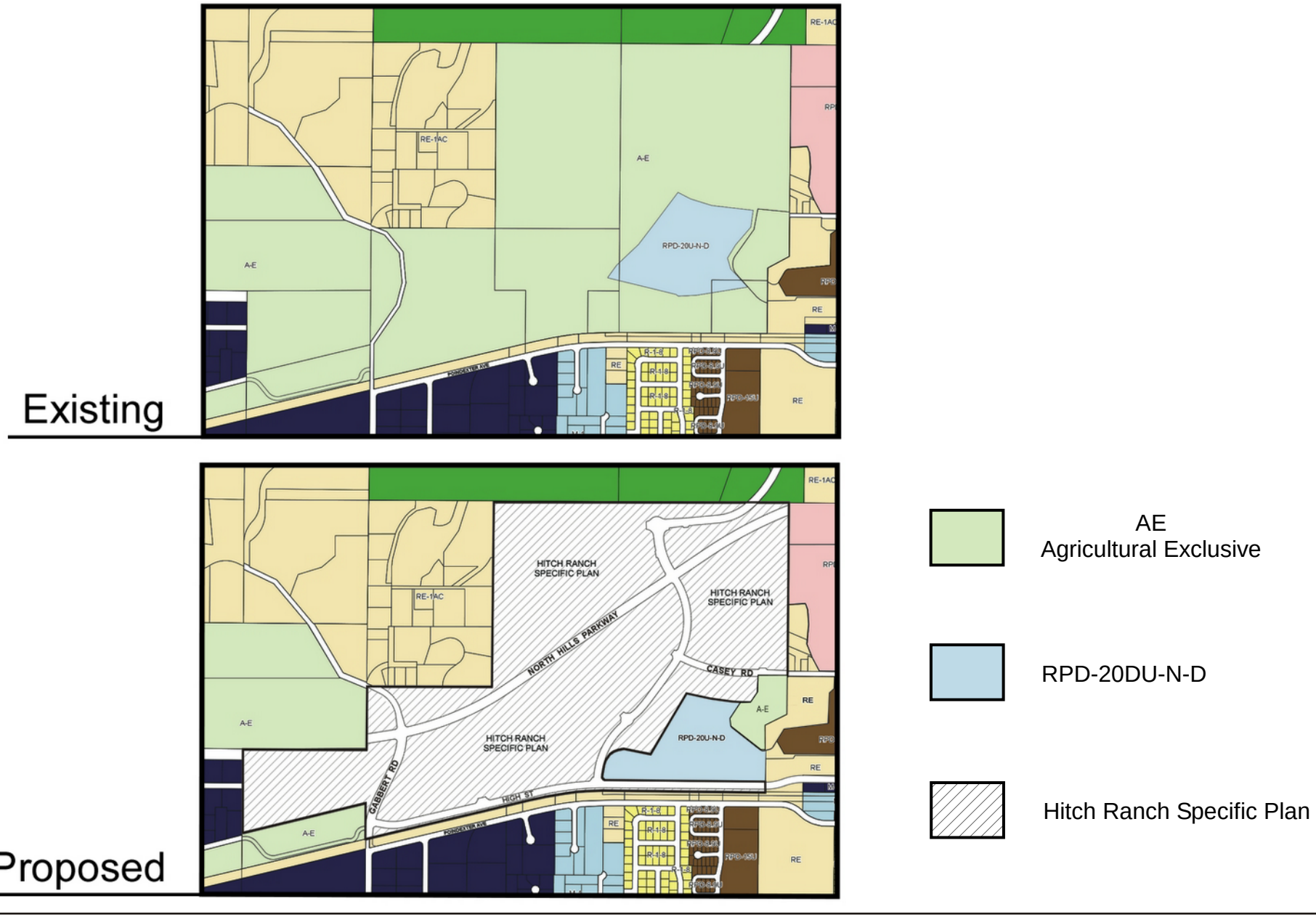

SOURCE: DPS, August 2021.

FIGURE **2.0-5**

City of Moorpark Zoning Existing and Proposed

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Subsequent Actions

Subsequent actions could include the following:

- Final tract maps and parcel maps
- Conditional use permits
- Grading permits
- Subdivision improvement plan permits
- Haul route approval
- Building permits
- Acquisition of easements and rights-of-way and construction of roads and access ways
- Homeowner Association formation
- Tree removal permit
- Encroachment permits
- Utility connection permits
- Retaining wall permits
- Formation of a Community Facilities District

2.6.2 Responsible and Trustee Agencies

Ventura County Agencies and Special Districts

Ventura County Air Pollution Control District. The management of air quality in Ventura County is the responsibility of the Ventura County Air Pollution Control District (VCAPCD). The VCAPCD is responsible for bringing air quality in the County into conformity with federal and state air quality standards. For a detailed discussion of air quality, please refer to **Section 3.2, Air Quality**.

Ventura County Fire Protection District. Fire protection services would be provided to the Proposed Project by the Ventura County Fire Protection District (VCFPD) under contract with the City of Moorpark.

For detailed discussions regarding fire protection services and wildfire impacts, please refer to **Section 3.13, Public Services – Fire Protection**, and **Section 3.18, Wildfire**.

Ventura County Transportation Commission. The Ventura County Transportation Commission (VCTC) is responsible for developing Ventura County's first Comprehensive Transportation Plan. VCTC is responsible for the coordination of travel and transit options in the County of Ventura and in concert with local agencies. For a detailed discussion of transportation impacts, please refer to **Section 3.15, Transportation**.

Ventura County Waterworks District No. 1. The Project requires the extension of domestic water service to the Specific Plan site. The Plan area is within the service area of the Ventura County Waterworks District No. 1 and would not need to be annexed into the District. For a detailed discussion of water service including line locations and point of connections, please refer to **Section 3.17, Utilities and Service Systems**.

Ventura Watershed Protection District. Onsite stormwater run-off from the Project will be conveyed to Ventura Watershed Protection District (VCWPD) facilities located along the southern border of the Plan area (the Walnut Canyon Channel). The Project will require approval from the VCWPD for drainage improvements prior to development of the Project. For a detailed discussion of hydrology and drainage improvement, please refer to **Section 3.9, Hydrology and Water Quality**.

State of California Agencies

State of California, Regional Water Quality Control Board. Pursuant to the federal Clean Water Act (Section 402(g)) and state General Construction Activity Storm Water Permit, a National Pollution Discharge Elimination System (NPDES) permit would be required for the Project-related construction activities in addition to a General Storm Water Permit for Construction and Storm Water Pollution Prevention Plan (SWPPP).

California Department of Fish and Wildlife. The Project would require a California Department of Fish and Wildlife permit pursuant to Sections 1602 of the Fish and Wildlife Code for actions associated with the disturbance of jurisdictional waters.

California Public Utilities Commission. The California Public Utilities Commission has jurisdiction over the safety of highway-rail crossings in California.

Federal Agencies

US Department of the Interior Fish and Wildlife Service. The Project may require a take permit prior to any Project activities that may result in impacts to the coastal California gnatcatcher. The permitting can occur through either Section 7 or 10 of the federal Endangered Species Act depending on the presence or absence of a federal nexus.

US Army Corps of Engineers. Due to the surface flow of water during the winter/wet season across the Plan area, drainage and erosional features occur throughout the site, the largest of which occurs along a sandy wash in the western portion of the site, west of Gabbert Road. A defined stream channel is not present at this location, but plant wetland-indicators grow within this sandy wash. Wetland delineation field surveys were conducted by Rincon Consultants, Inc. in December 2019 and May 2021, (included in **Appendix 3.3** to this EIR), pursuant to Sections 401 and 404 activities under the Clean Water Act and USACE survey protocols. Additionally, the concrete channel Walnut Canyon Channel which runs along the southern boundary of the Plan area, has been identified as a jurisdictional water course. For a detailed discussion of the jurisdictional waters, please refer to **Section 3.3, Biological Resources**.

3.0 ENVIRONMENTAL IMPACT ANALYSIS

INTRODUCTION

The Draft Hitch Ranch Specific Plan Environmental Impact Report (EIR) *provides an analysis of impacts for environmental topics where it was determined that the proposed project resulted in "potentially significant impacts," as identified in the Initial Study included in* ***Appendix 1.0****.*

*Each topical section of the draft EIR (****Sections 3.1*** *through* ***3.18****) includes the following information: description of the existing setting; identification of thresholds of significance; analysis of potential project-specific and cumulative effects; identification of a mitigation program, if required, to reduce the identified impacts; and identification of unavoidable significant adverse impacts, if applicable.*

3.0.1 EXISTING CONDITIONS

California Environmental Quality Act (CEQA) Guidelines Section 15125(a) states that, "[a]n EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant."

3.0.2 THRESHOLDS OF SIGNIFICANCE

State CEQA Guidelines Section 15064.7 addresses thresholds of significance and encourages public agencies to develop thresholds of significance through a public review process. Subsequently, these thresholds must be published and adopted by agency ordinance, code, or regulation. The City of Moorpark has not formally adopted a comprehensive list of thresholds of significance. Therefore, the thresholds used in this EIR have been derived from several sources, including the *City of Moorpark General Plan* and *Municipal Code*, the *State CEQA Guidelines* Appendix G Environmental Checklist, and adopted thresholds from other agencies (such as the Ventura County Air Pollution Control District).

3.0.3 PROJECT AND CUMULATIVE IMPACTS

3.0.3.1 Project Impacts

State CEQA Guidelines Section 15064 states:

> *In evaluating the significance of the environmental effect of a project, the Lead Agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project.*
>
> *A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project. Examples of direct physical changes in the environment are the dust, noise, and traffic of heavy equipment that would result from construction of a sewage treatment plant and possible odors from operation of the plant.*
>
> *An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment. For example, the construction of a new sewage treatment plant may facilitate population growth in the service area due to the increase in sewage treatment capacity and may lead to an increase in air pollution.*
>
> *An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable.*

3.0.3.2 Cumulative Impacts

As stated in *State CEQA Guidelines* Section 15355 cumulative impacts are "two or more individual impacts that, when considered together, are considerable or that compound or increase other environmental impacts ... The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." (*State CEQA Guidelines* Section 15355).

State CEQA Guidelines Section 15130 states that an EIR "shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable ... a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts."

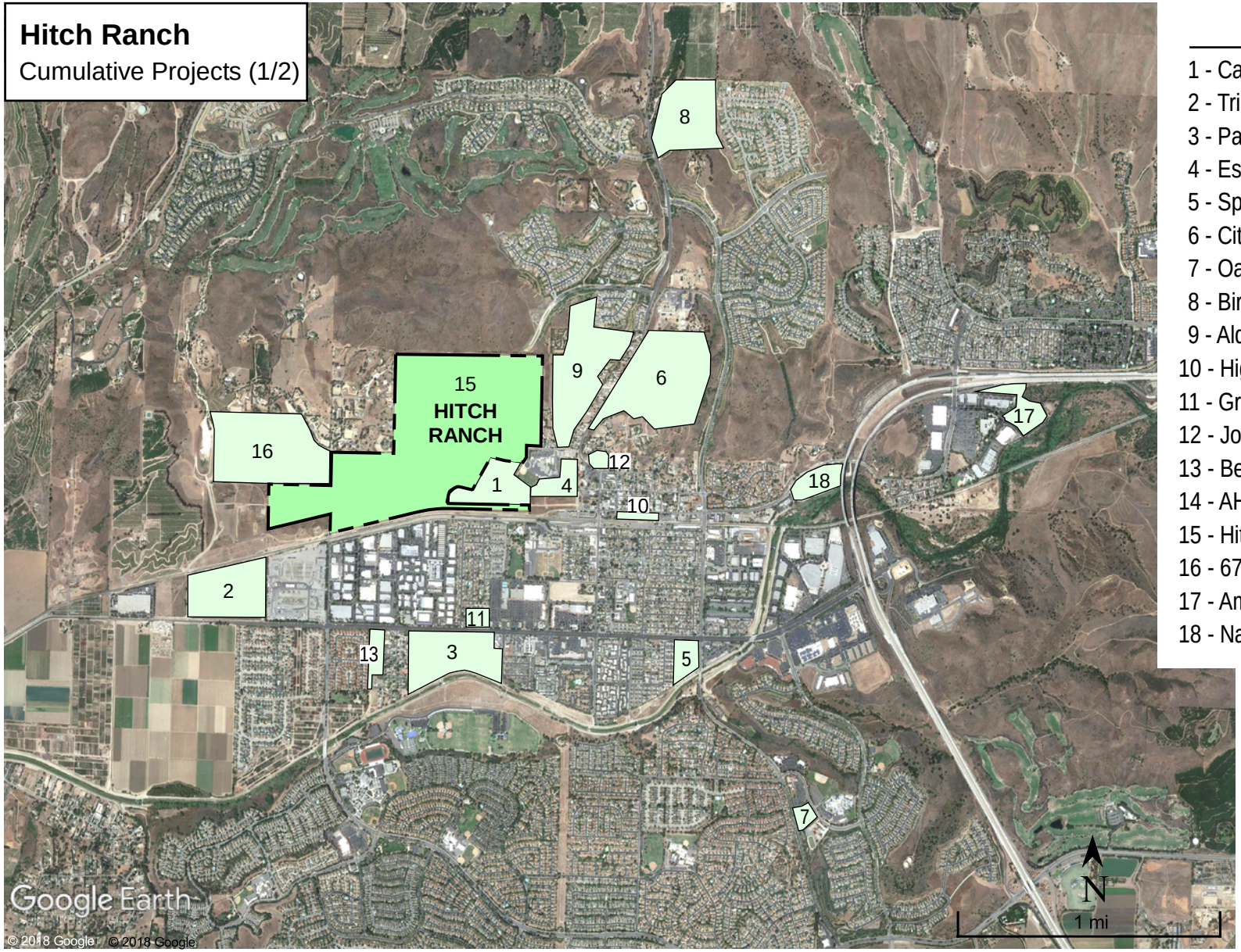
Pursuant to *State CEQA Guidelines* Section 15130(b)(1), the following elements are necessary for an adequate discussion of significant cumulative impacts: either "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects 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 ... " Therefore, cumulative development for the Hitch Ranch Specific Plan project refers to buildout of land within the project study area that is inclusive of the City of Moorpark and the County of Ventura based on current land use designations set forth in the jurisdictions' respective general plans, as well as all known general plan amendment requests for additional development in the study area.

Table 3.0-1, City of Moorpark General Plan Buildout Land Use Assumptions, summarizes the approximate acreage and dwelling units resulting from each land use classification and associated with buildout of the City of Moorpark, as set forth in the *City of Moorpark General Plan* Land Use Element. **Table 3.0-2, Cumulative Development Projects,** identifies known projects that have been proposed and/or approved in the City as of November 2021. **Figure 3.0-1a and 3.0-1b, Map of Cumulative Development Projects**, shows the locations of these projects. These projects were determined to potentially affect or be affected by the proposed project because of their location. The analysis of potential cumulative effects from implementation of the proposed project is presented for each topical issue in **Sections 3.1** through **3.18** of this EIR.

Table 3.0-1
City of Moorpark General Plan Buildout Land Use Assumptions

Land Use Designation	City Area (acres)	Dwelling Units or Square Feet
Residential		
Rural Low (RL): 1 du/5 ac	1,668	334 du
Rural High (RH): 1 du/ac	208	208 du
Low Density (L): 1 du/ac	168	168 du
Medium Low Density (ML): 2 du/ac	568	1,136 du
Medium Density (M): 4 du/ac	1,174	4,696 du
High Density (H): 7 du/ac	343	2,401 du
Very High Density (VH): 15 du/ac	161	2,415 du
Specific Plan 1 (Hitch Ranch)	285	755 du
Specific Plan 2	445	475 du
Specific Plan 9	25	80 du
Specific Plan 10	71	154 du
Residential Subtotal	5,106 ac	12,822 du
Commercial		
Neighborhood Commercial (C-1)	9	
General Commercial (C-2)	194	
Commercial Subtotal	203 ac	
Industrial		
Light Industrial (I-1): 0.38 FAR	263	
Medium Industrial (I-2): 0.38 FAR	285	
Industrial Subtotal	548 ac	
Agriculture		
Agriculture 1	45	
Agriculture 2	0	
Agriculture Subtotal	45 ac	
Open Space and Parks		
Open Space 1 (OS1): 1 du/10-40 ac	16	
Open Space 2 (OS2): 1 du/40 ac	1,080	
Park	197	
Open Space and Parks Subtotal	1,297 ac	
Other		
School (S)	357	–
Utilities (U)	47	–
Public/Institutional (PUB)	16	–
Freeway Right-of-Way (FRWY R/W)	291	–
Other Subtotal	717 ac	–
TOTAL	7,916 ac	12,822 du 11,355,220 sq. ft.

du: *dwelling unit*
ac: *acre*
sq. ft.: *square feet*
Source: *City of Moorpark General Plan Land Use Element, amended June 17, 2009, Housing Element, 2014.*



SOURCE: Google Earth, 2018

FIGURE **3.0-1a**

Hitch Ranch Cumulative Project Map

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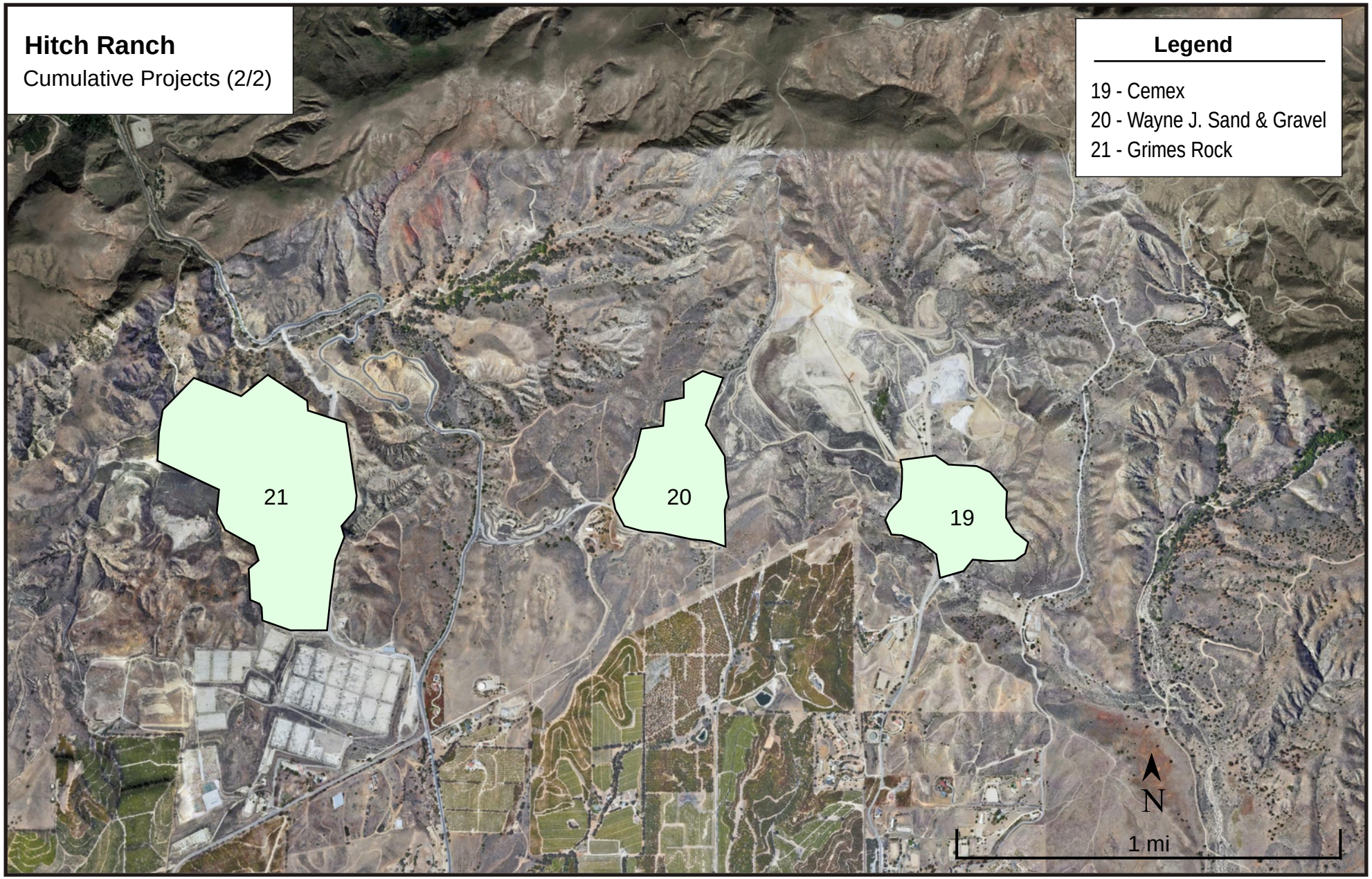

SOURCE: Google Earth, 2018

FIGURE **3.0-1b**

Hitch Ranch Cumulative Project Map

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Table 3.0-2
Cumulative Development Projects Including Proposed Project

	Project	Land Use	Size	Note
1	Casey Road City Parcel	Multi-Family Residential	333 Units	Conceptual
2	Triliad Development	Movie Studio	37 Acres	Approved
3	Pacific Communities	Single Family Residential	283 Units	Approved
4	Essex Moorpark, LLC	Multi-Family Residential	200 Units	Approved
5	Spring Road, LLC	Condominiums	95 Units	Approved
6	City Ventures	Single Family Residential	110 Units	Approved
7	Oakmont Senior Living	Senior Residential	77 Units	Under Construction
8	Birdsall Group, LLC	Single Family Residential	21 Units	Approved
9	Aldersgate Senior Housing	Senior Residential	390 Units	Approved
10	High Street Depot / Daly Group	Downtown Mixed-Use:		Approved
		Retail	13,656 SF	
		Apartments	79 Units	
11	Grand Moorpark "Green Island Villas"	Condominiums	63 Units	Approved
12	John C. Chiu, FLP-N	Condominiums	60 Units	Proposed
13	Beltramo Ranch	Single-Family Residential	52 Units	Proposed
14	AHA Scattered Sites	Multi-Family Residential	56 Units	Proposed
15	Hitch Ranch Specific Plan	Multi-Family Residential	755 Units	Proposed
16	Moorpark 67 / Rasmussen	Single-Family Residential	139 Units	Proposed
17	Amazon Distribution Center	Industrial	189,364 SF*	Under Construction
18	National Ready Mix	Batch Plant	10 Acres	Unknown
19	CEMEX	Quarry	N/A	Unknown
20	Wayne J. Sand & Gravel	Quarry	N/A	Unknown
21	Grimes Rock	Quarry	N/A	Unknown

* *Reuse of an existing industrial building*

Source: City of Moorpark Community Development Department, November 2021.

3.1 AESTHETICS

INTRODUCTION

This section of the Draft Environmental Impact Report (EIR) describes the existing visual character of the Project site and surroundings and evaluates the potential project-related changes in the visual character of the Project site and surroundings through a combination of methods that (1) identify corridors in which the project can be viewed; (2) identify "viewsheds" within these corridors where the development area would be visible; (3) identify within those viewsheds "prominent visual features;" and (4) describe post-development changes in the viewsheds.

3.1.1 EXISTING CONDITIONS

3.1.1.1 Regional Setting

The City of Moorpark is situated in and around the Little Simi Valley, named for the Arroyo Simi, which flows from the eastern part of Simi Valley west to Arroyo Las Posas. Little Simi Valley is about four miles long, about one mile wide, and is surrounded by the southwestern portion of the Simi Hills to the north and northeast, the Las Posas Hills to the south and southeast, and the Arroyo Las Posas to the west. Developed portions of the City are located primarily on the valley floor. However, substantial urban development has recently occurred in the lower hillside areas primarily north, south, and east of the valley floor. A by-product of this development pattern is the maintenance as open space of the higher hillside areas that surround the City and separate the City of Moorpark from other nearby urban areas. The result is the maintenance of a natural character as well as the protection of the higher ridgelines, slopes, and hillsides that are integral to the City's visual character.

3.1.1.2 Project Vicinity and Site

The site is situated along the southern margin of the Simi Hills and is bound to the south by the Union Pacific Railroad line. Topographic conditions along the southern margin of the site vary from small areas of nearly flat land to relatively steep hillsides that form the southern margin of the Simi Hills. From the southern site boundary, elevations rise to the north where topographic conditions are variable. Small areas in the central and western portions of the site maintain little topographic relief. However, the majority of the site can be characterized as an area of rolling hills. Drainage on the site occurs from north to south. The principal drainage feature on the site is situated in the western portion of the site and occurs near Gabbert Road. The most visible portions of the Project site occur along the southern margin of the site, adjacent to the railroad tracks and Poindexter Avenue. Visible portions of the site from this area include the flat areas between the railroad tracks and the hills and the south facing slopes and vegetation that occur along the southern perimeter of the site. These hills generally preclude any significant visibility

of interior portions of the Project site when viewed from the south. Due to the elevation gain on the site, large portions of the site are visible from the southern part of the City between Home Acres and Spring Road.

Maximum elevations of approximately 720 feet (above mean sea level) occur near the northern site perimeter, while minimum existing site elevations range from approximately 475 feet to 495 feet along the southern margin of the site adjacent to the Walnut Canyon Channel. Eighteen percent of the site has slopes of 20 percent or greater. Areas of slopes greater than 20 percent occur randomly throughout the Project site and are not concentrated in any one particular part of the site.

Land uses in the vicinity of the site are varied. The southern boundary of the site is bounded by the Union Pacific Railroad tracks, the Walnut Canyon Channel, and Poindexter Avenue which are all parallel and extend in an east-west direction. South of Poindexter Avenue, land uses include Chaparral Middle School, a single-family detached residential neighborhood, public parks, retail, commercial, and industrial uses. The eastern perimeter of the site is bound by small areas of open space; an elementary school; an area of small, older homes; and vacant land. The western perimeter on the site is generally comprised of natural vacant land and an enclave of single-family homes that occur east of Gabbert Road north of Poindexter Avenue. The northern perimeter of the site is dedicated open space with residential neighborhoods beyond.

3.1.1.3 Existing Views

To visually characterize the site and illustrate potential impacts, three viewing locations were selected for analysis. These locations were selected in the field based on their being identified as having the highest visibility from surrounding public roadway viewing to audiences located south, east, and west of the Project site. Each viewing location is publicly accessible. **Figure 3.1-1, Key to Viewpoints**, depicts the location of each viewing location. As shown, one viewing location is located on Casey Road entering the Project site from an existing neighborhood to the east of the site between the Walnut Canyon School and the older residential neighborhood. A second location is shown from the south looking north across Poindexter Avenue from Gisler Road. A third viewing location is located east of Gabbert and north of Poindexter Avenue. **Figures 3.1-2** through **3.1-5** illustrate existing views of the Project site from each of the four viewing locations.

Viewing Location A – Casey Road. Viewing Location 1 (**Figure 3.1-2, Existing View, Location A: Casey Road**) is situated west of residential homes and Walnut Canyon School located along the eastern perimeter of the Project site. Higher topography and vegetation in the background are visible to the west of the site from residences or the school. Where the site is visible, substantial site panoramas can be seen.

From Viewing Location A, foreground views are dominated by vistas of the eastern half of the Project site. Topographic conditions in this portion of the site can be described as rolling terrain with topographic conditions becoming flatter in the northern portion of the site as opposed to the southern portion of the site, which is more deeply incised. Vegetation in this area is dominated by nonnative grassland with only small areas of coastal sage scrub occurring on the upper reaches of the slopes. A few trees and large shrubs are present. No man-made features, other than dirt roads, are present and no prominent visual features occur within the foreground vistas of the Project site. The visual character of this portion of the site can be characterized as natural vacant land, which is typical of the region.

Viewing Location B – Poindexter Park. Viewing Location B (**Figure 3.1-3, Existing View, Location B: Poindexter Park**) is from Poindexter Park, just east of Gisler Road, south of Poindexter Avenue. At this location, there is a substantial mobile and residential viewing audience. This viewing location is situated immediately south of the Project site. The majority of the site is visible from this location. Given the distance of the Project site from Viewing Location B, site topography is not readily apparent, as well as the general character of the vegetation present.

From Viewing Location B, a visual panorama is present and the Project site is a component of that panorama. The Project site occurs in the upper portion of a natural vacant area north of the Union Pacific Railroad tracks. In this area, natural hills rise to the north and little man-made disturbance is apparent. The most prominent visual features within this landscape are the small hills and low ridges that occur along the southern portion of the Project site.

Viewing Location C – Gabbert Road. Viewing Location C **(Figure 3.1-4, Existing View, Location C: Gabbert Road)** is along the western perimeter of the Project site at the intersection of Gabbert Road and Poindexter Avenue. From Viewing Location C, foreground and mid-ground views are similar and their discussion here is combined. Due to site topography, foreground and mid-ground views from Viewing Location C are limited to portions of the western half of the Project site. Views include the north- and northwest-facing slopes and a broad valley that occurs in the west-central portion of the Project site. Vegetation in this area is variable and includes non-native grassland, and areas of disturbed/grazed California sagebrush scrub that occurs primarily in the valley floor. From Viewing Location C, trees are generally absent with the exception of the upper portions of eucalyptus trees that occur in the central portion of the Project site. Man-made improvements are limited to high voltage power poles, some fencing, and utility locations (gas line).

Viewing Location D – Gabbert Road and North Hills Parkway. Viewing Location D **(Figure 3.1-5, Existing View, Location C: Gabbert Road and North Hills Parkway)** is along the western perimeter of the Project site approximately one-quarter mile north of the intersection of Gabbert Road and Poindexter

Avenue, along Gabbert Road looking east toward the future right-of-way for North Hills Parkway. Due to site topography, foreground and mid-ground views from Viewing Location D are limited to portions of the western half of the Project site. Views include the north- and northwest-facing slopes in the distance. Vegetation in this area is limited, and includes non-native grassland, and areas of disturbed/grazed California sagebrush scrub, trees are limited to two small black walnuts, a small Chinese elm, and a Peruvian pepper tree. No man-made improvements other than dirt trails are visible.

3.1.1.4 Hillside Management Ordinance

The City's Hillside Management Ordinance (Chapter 17.38 of the Moorpark Municipal Code) established standards and procedures for development of hillside areas within the City of Moorpark. The stated purpose of these standards "is to implement the goals and policies of the *Moorpark General Plan* and the various elements contained therein as they relate to development and resource management in hillside areas within the City of Moorpark. The provisions contained [in the ordinance] will allow for orderly and sensitive development of hillside areas in conjunction with the preservation of natural open space." The following specific goals and policies of this ordinance reflect those contained in the general plan:

- To allow for development patterns in hillside areas that minimize erosion and geologic hazards and that provide for the protection of the public health, safety, and welfare.
- To encourage grading techniques that blend with the natural terrain, minimize earth-moving activity, minimize impacts of large cut and fill slopes and provide for the preservation of unique and significant landforms.
- To encourage the retention of natural drainage patterns and the preservation of significant riparian areas.
- To reduce water use in slope replanting and retention by encouraging grading design that minimizes manufactured slopes.
- To allow density transfers, where appropriate, to facilitate development in more appropriate locations while retaining significant natural slopes and areas of environmental sensitivity.

3.1.1.5 Scenic Corridors/Highways

There are no roadways, highways, or areas within or immediately adjacent to the Specific Plan site that has been designated by the City of Moorpark or Ventura County as scenic corridors or highway. According to the City of Moorpark's *Open Space, Conservation & Recreation Element*, the nearest scenic corridor is Walnut Canyon Road located approximately 500 feet to the east of the Project site. No

highways in the vicinity of the Specific Plan site are currently on the State of California Department of Transportation (Caltrans) list of officially designated state or county scenic highways. The *County of Ventura General Plan* Resources Element designates SR-118 as eligible for state scenic highway status.

3.1.1.6 Light and Glare

Presently, there is no light and glare from the Specific Plan site, as the site is vacant. Off-site residential and institutional uses (Walnut Canyon Elementary School) generate light from street and other outdoor lighting, such as parking lot lighting. Glare is very limited because most uses in the area are not constructed with reflective materials.

SOURCE: VisionScape Imagery, 2021.

FIGURE **3.1-1**

IMPACT SCIENCES

Key to Viewpoints

1318.003•11/2021

SOURCE: VisionScape Imagery, 2020

FIGURE **3.1-2**

IMPACT SCIENCES

Existing View, Location A - Casey Road

1318.003•04/20

SOURCE: VisionScape Imagery, 2020

FIGURE **3.1-3**

IMPACT SCIENCES

Existing View, Location B - Poindexter Park

1318.003•04/20

SOURCE: VisionScape Imagery, 2020

FIGURE **3.1-4**

IMPACT SCIENCES

Existing View, Location C - Gabbert Road

1318.003•04/20

Existing View

SOURCE: VisionScape Imagery, 2021.

FIGURE **3.1-5**

IMPACT SCIENCES

Existing View, Location D - Gabbert Road and North Hills Parkway

1318.003•11/2021

3.1.2 REGULATORY FRAMEWORK

3.1.2.1 State Laws and Regulations

California Scenic Highways and Historic Parkways Program

The California Scenic Highways and Historic Parkways Program was created in 1963 to preserve and protect highway corridors located in areas of outstanding natural beauty from changes that would diminish the aesthetic value of the adjacent lands. Caltrans maintains its State Scenic Highways and Historic Parkways Program, through which segments of the State highway system are designated as being of particular scenic value or interest. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. Interstates, state highways, byways, and parkways are eligible for designation or for recognition as eligible for designation. The program is governed by the regulations found in the California Streets and Highways Code, Section 260 et seq.

California Streets and Highway Code Section 261 requires local government agencies to take the following actions to protect the scenic appearance of the scenic corridor:

- Regulate land use and density of development,
- Provide detailed land and site planning,
- Prohibit off-site outdoor advertising and control of on-site outdoor advertising,
- Pay careful attention to and control of earthmoving and landscaping, and
- Scrutinize the design and appearance of structures and equipment.

California Streets and Highway Code Section 263 allows the California State Legislature the authority to identify highways as eligible for designation as a scenic highway. The government with jurisdiction over land abutting a highway considered to be scenic is required to adopt a "scenic corridor protection program" that restricts development, outdoor advertising, and earthmoving activities along the affected segment or corridor (Corridor Protection Program). Caltrans must also indicate that the highway segment meets established criteria in order for the roadway or segment to be designated as scenic.

California Code of Regulations Title 24 Part 6

The California Energy Code (Cal. Code Regs., tit. 24 § 6) creates standards in an effort to reduce energy consumption. The type of luminaries and the allowable wattage of certain outdoor lighting applications are regulated.

California Environmental Quality Act

CEQA affords protection for the environment, including aesthetic resources. The Governor's Office of Planning and Research (OPR) updated the Guidelines in late 2018, including guidelines regarding impacts to aesthetic resources. Changes to the thresholds include clarification of aesthetic resources within non-urbanized and urbanized areas, as well as clarification of what constitutes a public view. The *State CEQA Guidelines* provide four criteria that may be used to evaluate the significance of visual quality impacts: negative effects on a scenic vista, damage to scenic resources within a state scenic highway, degradation of the visual character or quality of a site and its surroundings, and creation of a new source of substantial light or glare affecting views.

3.1.2.2 Local

The following goals and policies of the *City of Moorpark General Plan* related to aesthetics and visual resources are applicable to the proposed Hitch Ranch Specific Plan project.

Land Use Element

Goal 16: Enhance and maintain the suburban/rural identity of the community.

Policy 16.2: Hillside development standards shall be adopted which restrict grading on slopes greater than 20 percent and which encourage the preservation of visual horizon lines and significant hillsides as prominent visual features.

Policy 16.3: The overall density and intensity of development should decrease as the slope increases.

Policy 16.4: New residential development should complement the overall community character of the City, establish a sense of place, and ensure compatibility with important existing local community identities.

Goal 17: Enhance the physical and visual image of the community.

Policy 17.1: New development shall be compatible with the scale and visual character of the surrounding neighborhood.

Policy 17.2: Identifiable entryways for the overall community, and unique or principal business/commercial districts of the City (i.e., City core and transportation corridors) should be encouraged.

Policy 17.4: Design concepts should be established for the overall community and for special treatment areas, such as the downtown district, which may include guidelines for architecture, landscape architecture, signage, streetscape, and infrastructure.

Policy 17.5: New development should incorporate a variety of landscape architecture themes and techniques to help organize and delineate land uses and to enhance the overall visual quality of the City.

Policy 17.6: Enhanced landscaping shall be used around residential, commercial, and industrial buildings, and parking areas as well as along easements of flood control channels, roadways, railroad right of ways, and other public and private areas to soften the urban environment and enhance views from roadways and surrounding uses.

Policy 17.7: Design features which provide visual relief and separation shall be required between land uses of conflicting character.

Policy 17.8: Undergrounding of utilities shall be required in conjunction with development projects whenever feasible.

Policy 17.9: Visual impacts of above-grade utility structures, such as water storage tanks, water check valves, electric and telephone boxes, etc., shall be minimized through use of landscaping, materials, and colors that blend with the environment.

Open Space, Conservation, and Recreation Element

Goal 1: Preserve and enhance the unique aesthetic and visual qualities of Moorpark as a city with scenic topographic features and elements that promote the quality of life that Moorpark citizens pursue.

Policy 1.1: Protect the scenic viewsheds both to and from the City of Moorpark. This shall include those views extending north to the Santa Susana Mountains and south to Tierra Rejada Valley. This will extend to any new development and to any future renovations and additions that may potentially obscure a viewshed.

Goal 6: Maintain and enhance the open space and designated non-growth areas for conservation, agriculture, ranching, recreation, leisure, and aesthetic purposes.

Policy 6.2: Maintain open space lands that are well suited to their intended uses and that will result in the most efficient use of land. All such lands should be designed and managed for the convenience, health, safety, and pleasure of intended users and should represent positive examples of open space planning and energy conservation.

3.1.3 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *State CEQA Guidelines* (Environmental Checklist Form), a project could have a significant impact when it would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

3.1.4 METHODOLOGY

Vantage points around the Specific Plan site were selected to show potential visual changes that would result from project development. These views from public areas are representative of views from locations surrounding the Specific Plan site.

A viewshed analysis was prepared by VisionScape Imagery in March 2020. Photographs of existing view conditions were taken at three locations around the Project site. The visual simulation process uses computer technology to translate the two-dimensional architectural and landscape plans/elevations into three-dimensional computer-generated images that depict a conceptual appearance of the project from off-site locations. Simulations provide renderings of the site from existing conditions, construction of preliminary roads and grading, initial site construction and landscaping, and the proposed project five to seven years after the start of development.

3.1.5 PROJECT IMPACTS

The visual impacts of a project include both the objective visual resource change created by the project and the subjective viewer response to that change. Distance from the project, frequency of view, length of view, viewer activity, viewer perception, and viewing conditions contribute to the assessment of a visual impact. The physical limits and changes of the views and the quantity of viewers are objective. Viewer perception is subjective. As noted in the Specific Plan prepared for the Hitch Ranch Plan Area, and consistent with City's General Plan Goals and Policies, Hitch Ranch will concentrate development in proximity to existing infrastructure, roadway and public services and will retain significant open space. The Specific Plan permanently preserves approximately 75 acres of open space. Development will not visually dominate ridgelines; development is planned to respect view sheds and natural open spaces to the extent possible, all proposed development is to occur proximate to where other suburban land uses already exist.

The perception of different viewer groups to the visual environment and its elements varies based on viewer activity and awareness. Activities such as commuting in heavy traffic can distract an observer from many aspects of the visual environment. Conversely, pleasure driving or relaxing in a scenic environment can encourage an observer to look at the view more closely and at greater length, thus increasing the observer's attention to detail. Sensitivity is also determined by how much the viewer has at stake in the viewshed. Typically, people who own property in an area are more sensitive to change than those just passing through.

Impact AES-1 Have a substantial adverse effect on a scenic vista.

Significant and Unavoidable

On-Site Features

The implementation of the Hitch Ranch Specific Plan project would occur incrementally over a period of several years, with market conditions ultimately dictating phasing of the remaining portions of the project. Short-term impacts would fall within several categories of visual impacts. Mass grading would affect existing topography, vegetation cover, and vistas. Throughout much of the grading, large construction vehicles would be visible from adjacent (and some distant) vantage points. Barren slopes and new development in various stages of construction would be intermittently visible throughout the development of the project.

Landscape plans to be implemented as part of the project would involve replanting slopes with native vegetation to reduce the visual impacts associated with cut, fill, and other slope-alteration activities. Proposed cut slopes would be contour graded or left natural to match surrounding terrain, thereby reducing viewshed impacts that may occur on surrounding uses from grading activities. The use of native species to replant graded and other revegetated areas would reduce the "hard edge" of the project as it relates to off-site natural areas, thereby reducing the project's visual presence and providing a transition zone from natural to suburban uses. However, the short-term changes to the Specific Plan site would result in significant impacts.

Implementation of the Specific Plan would significantly alter the visual characteristics of the site. Grading activities would affect several of the significant ridgelines that transverse the Specific Plan site. The westernmost viewshed (Open Space) would be generally unaffected by development; under the proposed project this portion of the Specific Plan site would be retained as open space. The remainder of the Project site would be converted from undeveloped open space to the development as provided for by the Specific Plan. Existing vacant land would be developed with residential, and recreational uses that would be visible from public viewpoints. As a result of the implementation of the Specific Plan, the project would have a significant impact to this viewshed.

Surrounding Views

A visual analysis was conducted from several viewpoints within the project area. The viewpoints were selected as representative locations based on the Specific Plan site's visibility from off-site public and private locations. **Figure 3.1-1** shows the location of these viewpoints. The following provides a description of these viewpoints. Visual simulations depict development of the roadway improvements

and project construction, and landscaping of the proposed project five to seven years after construction begins.

Visual Simulation Location A – East Along Casey Road. The first simulation (**Figure 3.1-6, Proposed View, Location A – No Landscaping**) shows the project after the completion the construction of Casey Road west from its current terminus near Walnut Canyon School. Improvements include streets and sidewalks. The site development to the north of Casey Road involves the installation of noise walls and construction of single-family residences with associated landscaping; the development of multi-family units east of "A" Street is also shown. The view along Casey Road five to seven years after development is show in **Figure 3.1-7, Proposed View, Location A – with Landscaping**.

Visual Simulation Location B – Poindexter Park, East of Gisler Road, South of Poindexter Avenue. The first simulation (**Figure 3.1-8, Proposed View, Location B – No Landscaping**) shows the completion of manufactured slopes along the south portions of the site in Planning Area 4 and the completion of a detention basin north of Poindexter Avenue, along with later stages of initial improvements and additional grading of the upper portion of slopes. Landscaping improvements surrounding the detention basins along Poindexter Avenue and multi-family units in Planning Area 4 are shown, along with single family residences to the west. Finally, views of the Project site five to seven years after the start of development are provided **Figure 3.1-9, Proposed View, Location B – with Landscaping.**

Visual Simulation Location C – West from Gabbert Road. The first simulation (**Figure 3.1-10, Proposed View, Location C – No Landscaping**) in the near view shows the railroad level crossing gate, and a stop sign at the Poindexter Avenue intersection; single family residences along the newly constructed North Hills Parkway are visible in the distance to the east. Finally, views of the Project site five to seven years after the start of development are provided **Figure 3.1-11, Proposed View, Location C – with Landscaping.**

Visual Simulation Location D – West from future North Hills Parkway at Gabbert Road. The first simulation (**Figure 3.1-12, Proposed View, Location D – No Landscaping**) in the near view shows the North Hills Parkway roadway to the east; the multi-use trail and sidewalks along North Hills Parkway; single family residences within Planning Area 1 in the distance on the left in the image; single family residences in Planning Area 2 on the right above North Hills Parkway are visible to the east. Finally, views of the Project site five to seven years after the start of development are provided **Figure 3.1-13, Proposed View, Location D – with Landscaping.**

Hillside Management Ordinance

The intent of the Hillside Management Ordinance (Chapter 17.38 of the Moorpark Municipal Code) is to implement the goals and policies of the *City of Moorpark General Plan*, as they relate to the development and resource management in hillside areas of the City. The directive of the Hillside Management Ordinance is to allow for "orderly and sensitive development of hillside areas in conjunction with the preservation of natural open space." **Figure 3.1-14, Slope and Ridgeline Map**, illustrates the slopes and prominent ridgeline area on the Project site. The Project site is comprised of approximately 183.2 acres with slopes less than 20 percent slopes, approximately 58.1 acres with slopes between 20 to 35 percent, approximately 27.6 acres with slopes between 35 to 50 percent, and approximately 8.4 acres with slope greater than 50 percent. Overall, the approximately 277.30-acre Project site has an average slope of 19 percent. In general, grading of the Project site would involve the mass grading and cut and fill approximately 5.4 million cubic yards of earth, which would be balanced on site. Maximum cut slopes would be approximately 70 feet high, and maximum fill areas would be approximately 75 feet high. Approximately 198.7 acres (72 percent) of the Project site would be graded under of implementation of the proposed Specific Plan. Approximately 55.2 acres (20 percent) of the Project site would remain undisturbed.

Accordingly, the proposed project does not intend to disturb some of the steeper areas of the site, specifically the area west of Gabbert Road (Area A on **Figure 3.1-15, Hillside Grading Area Identification Map)** and the area north of Planning Area 1 (Area B **Figure 3.1-15, Hillside Grading Area Identification Map**).

Generally, the steeper slopes on the site which are being disturbed are relatively minor intermediate ridge spurs within the site. Most of the "prominent" ridgelines and landforms are retained.

Section 17.38.030.B exempts properties with 20% or greater slopes when those slopes are associated with minor drainage courses that do not impact significant natural drainage patterns or ridgelines.

From a visibility/view perspective, most of the "prominent" slopes or ridgelines are preserved; the larger slopes north of Planning Area 1 (Area B on **Figure 3.1-15, Hillside Grading Area Identification Map**), the larger slopes west of Gabbert Road (Area A on **Figure 3.1-15, Hillside Grading Area Identification Map**), and the existing ridgeline/knoll southwest of Planning Area 2 (Area C on **Figure 3.1-15, Hillside Grading Area Identification Map**).

Much of the site was graded for ranching and farming purposes sometime in the last century so most impacts to the existing topography are not impacts to natural slopes because the natural grade has long since been disturbed.

Most of the impacts to existing topography within Planning Areas 1 & 2 are generally in areas with existing slope gradients less than 20%. Some of the more noteworthy impacts to existing slopes with gradients greater than 20% are within Planning Areas 3 & 4 on the east side of the site. However, there are a few considerations which limit the applicability of the ordinance in these areas:

As mentioned, many of these are smaller and more localized areas that likely do not qualify as "prominent" landforms (most of the impacts actually just involve filling-in existing local valleys so visual impacts are much less significant than significant cuts to ridgelines). Filling-in local valleys/ravines is permissible per Section 17.38.090.

SOURCE: VisionScape Imagery, 2020

FIGURE **3.1-6**

IMPACT SCIENCES

Proposed View, Location A - No Landscaping

1318.003•04/20

SOURCE: VisionScape Imagery, 2020

FIGURE **3.1-7**

IMPACT SCIENCES

Proposed View, Location A - with Landscaping

1318.003•04/20

SOURCE: VisionScape Imagery, 2020

FIGURE **3.1-8**

IMPACT SCIENCES

Proposed View, Location B - No Landscaping

1318.003•04/20

SOURCE: VisionScape Imagery, 2020

FIGURE **3.1-9**

IMPACT SCIENCES

Proposed View, Location B - with Landscaping

1318.003•04/20

SOURCE: VisionScape Imagery, 2020

FIGURE **3.1-10**

IMPACT SCIENCES

Proposed View, Location C - No Landscaping

1318.003•04/20

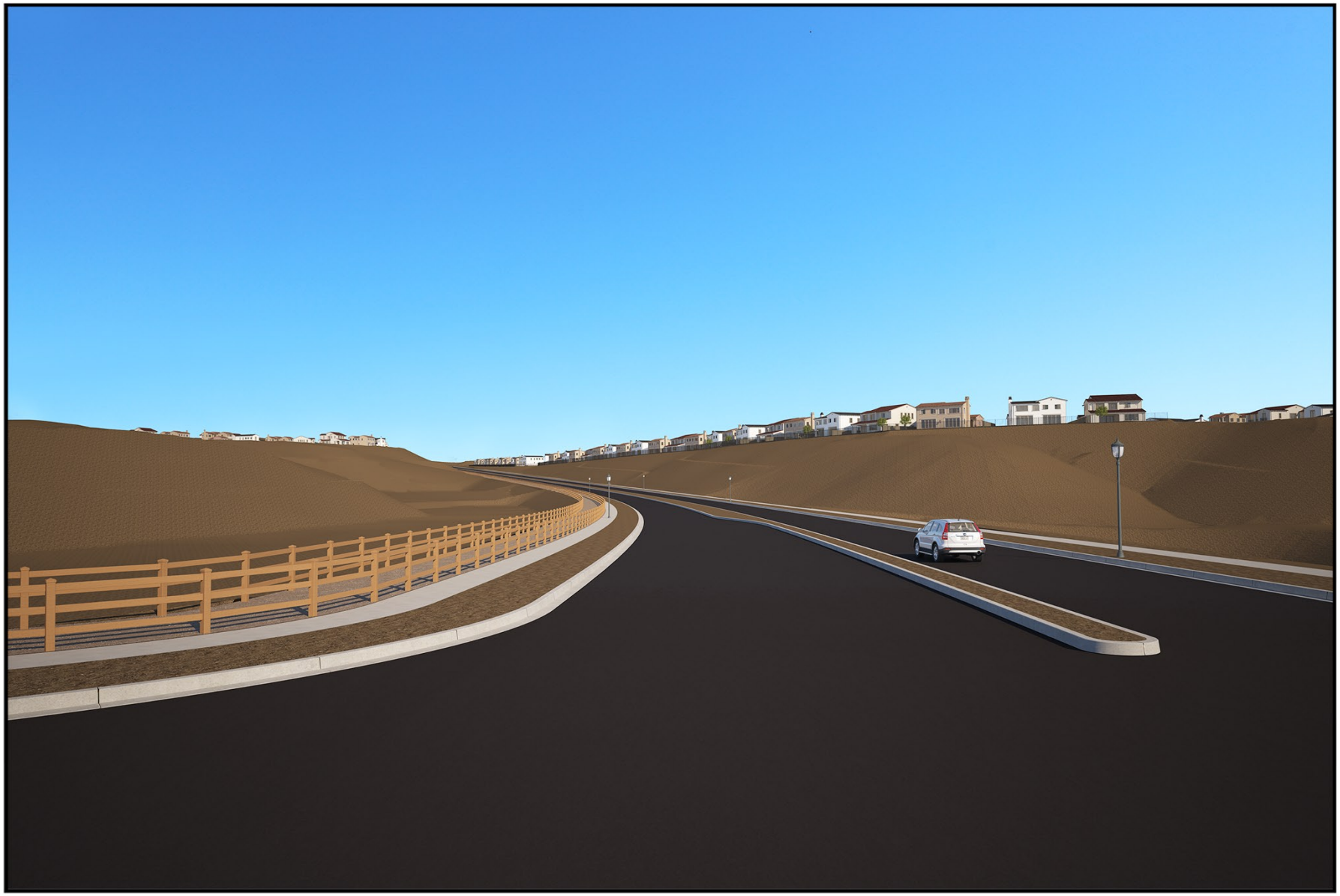
SOURCE: VisionScape Imagery, 2020

FIGURE **3.1-11**

IMPACT SCIENCES

Proposed View, Location C - with Landscaping

1318.003•04/20



Proposed View

SOURCE: VisionScape Imagery, 2021.

FIGURE **3.1-12**

IMPACT SCIENCES

Proposed View, Location D - No Landscaping

1318.003•11/2021

Proposed View

SOURCE: VisionScape Imagery, 2021.

FIGURE **3.1-13**

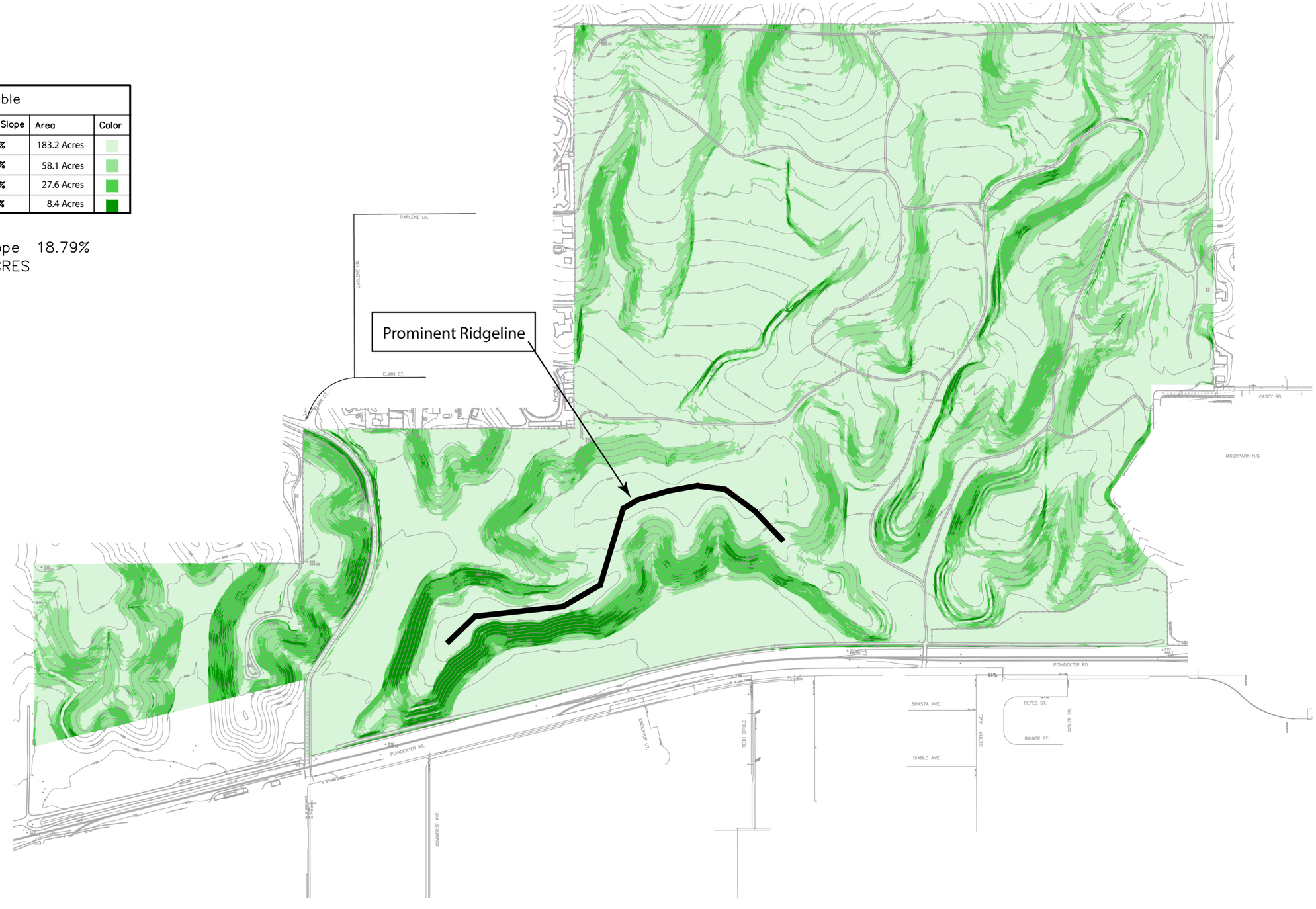
IMPACT SCIENCES

Proposed View, Location D - With Landscaping

1318.003•11/2021

Slopes Table				
Number	Minimum Slope	Maximum Slope	Area	Color
1	0.00%	20.00%	183.2 Acres	
2	20.00%	35.00%	58.1 Acres	
3	35.00%	50.00%	27.6 Acres	
4	50.00%	>50.00%	8.4 Acres	

Mean grade/slope 18.79%
277.3ACRES



500 250 0 500

APPROXIMATE SCALE IN FEET

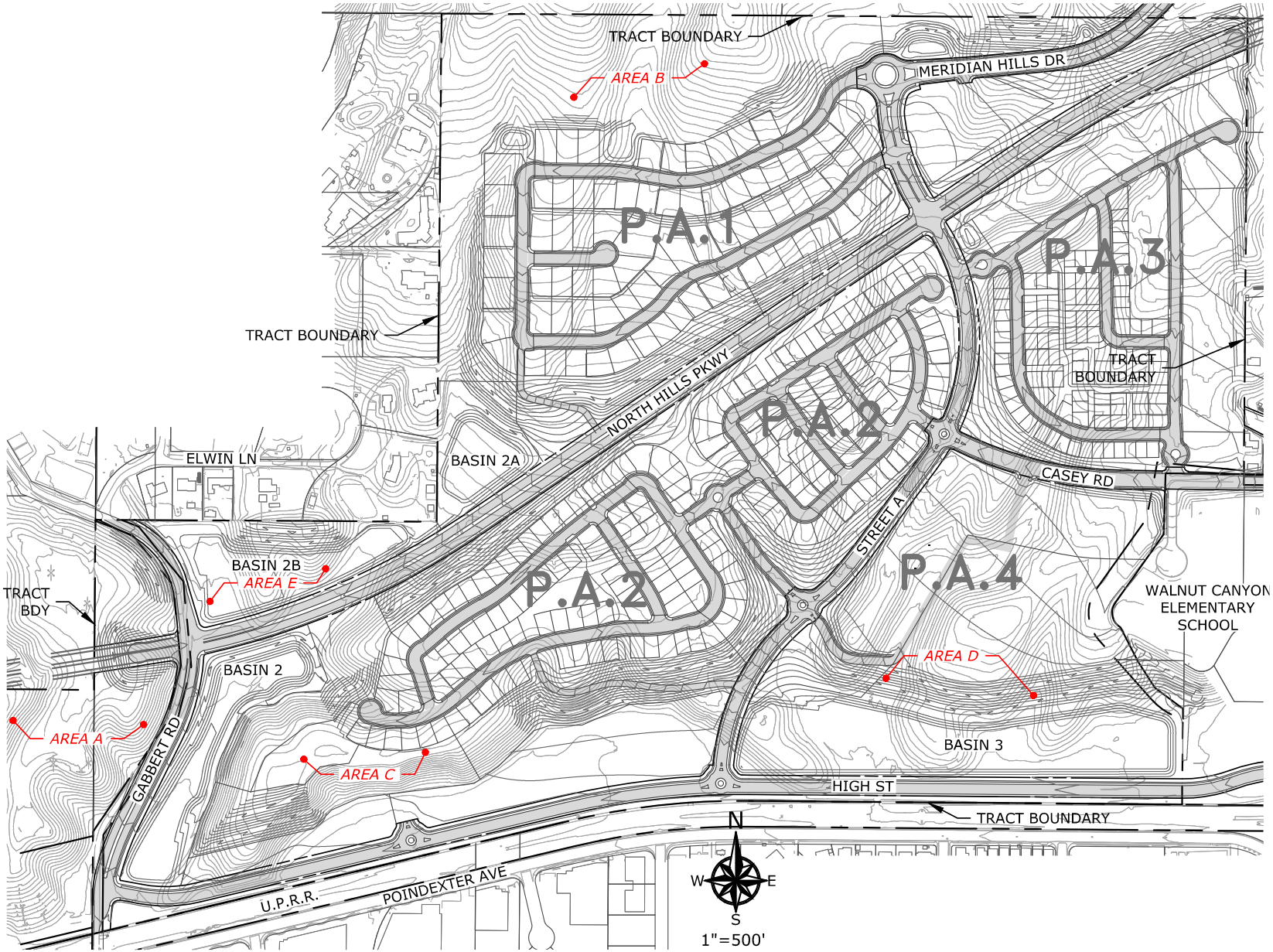
SOURCE: Golden State Aerial Surveys, Inc., April 2006

FIGURE **3.1-14**

IMPACT SCIENCES

Slope and Ridgeline Map

1318.003•04/20



SOURCE: Encompass Consultant Group, 2022.

FIGURE **3.1-15**

IMPACT SCIENCES

Hillside Grading Area Identification Map

1318.001•02/22

These impacts are in denser planning areas which is generally in-line with the intent of the ordinance - increase density in one area to minimize impacts on the rest of the site where more prominent landforms are located.

A key reason for the fills in Planning Area 4 (Area D on **Figure 3.1-15, Hillside Grading Area Identification Map**) is to support Detention Basin 3, which provides a regional benefit by diverting significant quantities of storm water runoff from Walnut Canyon Channel so that existing downstream flood control infrastructure is not overwhelmed.

Similarly, the area northeast of the intersection of Gabbert Road and North Hills Parkway (Area E on **Figure 3.1-15, Hillside Grading Area Identification Map**) requires some excavation cuts to provide sufficient volume storage for Detention Basin 2B.

It should be noted that a portion of the storage volume that will be provided within Basin 2B is for sediment/debris storage for the existing watershed northwest of the project. In the existing condition, sediment/debris storage for this existing watershed is not adequately provided. The proposed improvements will provide a regional benefit by ensuring that sediment and debris from the existing watershed is not transported downstream.

The Specific Plan would provide remedial measures to reduce erosion and geologic hazards; limit the alteration of visible ridgelines; preserve natural drainages; develop the densest portions of the site in the flatter portions of the site; and use native vegetation for replanting and other water-conserving techniques. In addition, the project would incorporate landscape intended to transition developed areas from natural open space areas, as well as provide buffering of views of the Specific Plan site from surrounding land uses.

It should be noted that construction of the North Hills Parkway and other General Plan Circulation Element Roadways within Hitch Ranch, with or without development of the Specific Plan, would result in significant encroachments to the slopes greater than 20 percent. Approximately 34 percent of the Specific Plan site with slopes of 35 to 50 percent would be retained in dedicated open space; the Hillside Management Ordinance requires 50 percent. The 50 percent or greater slope areas proposed for development are small, isolated areas that would be graded as part of the development plan. In addition, the project does include the preservation the prominent ridgeline on the Specific Plan site, but does include homes built along the hillside visible from the very near-field perspective, but not visible from the majority of the Moorpark valley floor area (refer to visual simulations **Figures 3.1-6** to **3.1-13)**. Preservation of this area is consistent with the Hillside Management Ordinance requirements. Further, Section 17.38.030 M of the Hillside Management Ordinance allows the City to approve a development agreement to exempt a project from the requirements of the Ordinance. The Applicant will be requesting

a Development Agreement for this project, once negotiated and granted, impacts under the Hillside Management Ordinance would be less than significant.

Silhouetting

A review of plans indicates that the proposed development would be built below higher ridgelines that occur off site to the north. However, from Viewing Locations A, B, and C, development is proposed above the viewer or at a higher or similar elevation. Therefore, project elements viewed in the foreground would obscure the higher and more distant hills and appear as silhouettes or a form of ridgeline development. This condition would apply where the southern margin of Planning Area 3 is observed from Viewing Location A, where the northern margin of Planning Area 2 is viewed from Viewing Location B, and where Planning Area 3 is viewed from Viewing Location C.

Given the change in the visual character of the site, and that background visual features would be removed and replaced with the silhouettes of the new homes, impacts to the visual resource environment would be considered significant when measured against this assessment criterion.

Landform Alterations

Terrain on the Project site consists of low hills and broad channel areas. Project construction would require substantial grading that would result in the creation of six large, generally flat pad areas. Given the substantial change in the site's existing landform from a natural rolling terrain to a series of "super pads," impacts to the visual resource environment would be considered significant when measured against this assessment criterion.

Effects on Views from Surrounding Residences

Views from residential areas are emphasized here for several reasons. First, many residences are directly oriented towards the Project site. Second, vistas of and across the site can be considerable. Third, the impact associated with project implementation (for these residents) would likely be the greatest alteration to their existing environmental condition. Last, residents with views of the site requested that this issue be evaluated during the project scoping meeting.

Residences South of Poindexter Avenue. Most homes south of Poindexter Avenue are oriented away from the site. Where visible, project elements that would be observable include (proceeding from east to west) (1) the contour-graded manufactured slope that occurs north of detention basin 1, (2) the high-density residential structures proposed as part of Planning Area 4, (3) the contour graded slopes and natural open space that occurs south and west of the Planning Area 4, and (4) the southern margins of the residential structures associated with development along the southern margin of Planning Area 2. Homes

along the southern margin of these development areas would obscure views of homes proposed to the north.

Because most homes from this viewing location are not oriented towards the site, and rear yard walls preclude most vistas of the site, no significant impacts from this location are expected.

Residences to the North. New construction with residential uses are located north of the Project site; some of these have partial vistas of the Project site. Project elements that may be visible include (proceeding from north to south): (1) residential development in Planning Area 1; (2) a corridor for the North Hills Parkway roadway consistent with the general plan (as shown in Figures 3.1-12 and 3.1-13); and (3) residential development in Planning Area 3.

Because homes from this viewing location are oriented towards the site with no rear yard walls to obstruct vistas of the site, and elements of the Project would be partially visible, impacts associated with Project visibility to this residential viewing audience are considered significant.

Residences to the West. Residences to the west of the Project site are at elevations similar to those found within the Project site and would thus have views into the Project site. Areas of the Project site adjacent to these residences are planned to be preserved as open space, which would reduce the potential for impacts to views from this location. The Project site's topography would further obscure Project development from view, and no significant impacts from this location are expected.

Residences to the South and East. Residences to the east of the Project site occur at a lower elevation and residents would have no direct vistas of the Project. Therefore, these residents would not be directly impacted by the Project. Residents to the east of the site would observe an incremental change in the existing condition. However, developments would be observed as an incremental encroachment of development into the lower hillsides that is not out of character with existing development practices in the City and are not considered significant.

Implementation of **Mitigation Measure AES-1** would help mitigate impacts to the scenic vista during construction, and implementation of the Project Design Features of the Specific Plan and **Mitigation Measure AES-2** would help mitigate impacts to the scenic vista following construction; however, impacts to the overall Project site would remain significant and unavoidable.

Impact AES-2 **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.**

No Impact

There are no roadways, highways, or areas within or immediately adjacent to the Project site that have been designated by the City of Moorpark or Ventura County as scenic corridors or highways. According to the City of Moorpark's *Open Space, Conservation & Recreation Element*, the nearest scenic corridor is Walnut Canyon Road located approximately 500 feet to the east of the Project site. No highways in the vicinity of the Project site are currently on the Caltrans list of officially designated state or county scenic highways. The *County of Ventura General Plan* Resources Element designates SR-118 as eligible for state scenic highway status; SR-118 is approximately 1/2–mile south the Project site and is not visible due to the relatively flat topography and intervening structures.

As such, the Proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway, as none of these resources exist on or near the Project site and there would be no impact.

Impact AES-3 **In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.**

Less than Significant

The Proposed Project is in an area defined by the U.S. Census Bureau as an 'Urban Cluster'[1], implementation of the Specific Plan would not conflict with applicable zoning and other regulations governing the visual character and quality of public views. Further, the Project would be required to adhere to the City's Standard Conditions regarding visual character and quality (see **Section 3.1.7.1**, below). Refer to **Section 3.10, Land Use** for a full discussion and analysis regarding the Proposed Project's consistency with the City of Moorpark's General Plan.

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1 The Census Bureau identifies two types of urban areas:
- Urbanized Areas (UAs) of 50,000 or more people
- Urban Clusters (UCs) of at least 2,500 and less than 50,000 people

https://www.census.gov/programs-surveys/geography/about/faq/2010-urban-area-faq.html, accessed November 23, 2021.

Impact AES-4 **Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.**

Less than Significant with Mitigation

Light and Glare

Currently, the primary sources of light and glare in the vicinity of the Project site are streetlamps and motor vehicles on roadways to the south. Secondary sources of light are light fixtures on nearby residential, commercial, and industrial units. With implementation of the proposed project, nighttime lighting would increase with the illumination of homes, parking lots, streets, and the associated headlamp illumination. No night lighting of recreational areas is planned. Lighting of the proposed project would constitute a substantial new light source in the City and would alter the current character of the site. It is anticipated that there would not be any direct lighting into unshaded windows of surrounding residents that would disturb sleep. However, new street lighting associated with the project would still provide additional illumination in the area and, thus, would be considered a potentially significant impact. However, implementation of **Mitigation Measures AES-3** and **AES-4** would mitigate this impact to a less than significant level.

3.1.6 CUMULATIVE IMPACTS

Cumulative impacts would result from implementation of the Specific Plan. When considered together, this development would continue the trend within the City that has resulted in the conversion of natural open space to a man-made condition. This cumulative development would not impact reasonably foreseeable projects on properties within the same local viewshed area assessed in this EIR. The Project site is located north of Poindexter Avenue, west of Walnut Canyon Road and east and west of Gabbert Road. With the exception of the proposed project, residents from these two principal local viewing audiences (Poindexter Avenue and Gabbert Road) would not observe other development that would cumulatively act to exacerbate project specific impacts. Based on the above, no cumulative impacts are expected with respect to these viewing audiences.

From a distance, the site would be visible to observers in the vicinity of Spring Road at higher elevations. From this viewing location, a large visual panorama is available, and development of the Specific Plan would cumulatively act with other residential and industrial projects to the south and west north and east that are proposed or reasonably foreseeable. The net effect of this cumulative development from this viewing location would be the continuation of the trend towards the loss of open space by its conversion to a suburban setting. All proposed development would occur in areas already dominated by suburban land uses or below ridgelines, where it would not alter the visual backdrop of the City. Based on the

above, no cumulative impacts on the visual resources are expected with respect to viewing audiences occurring in the Spring Road viewshed.

3.1.7 MITIGATION PROGRAM

3.1.7.1 Project Design Features

The Hitch Ranch Specific Plan Design Guidelines provides the design framework for streetscape, landscape, and buildings to convey a unified and unique community character. The architectural and landscape guidelines have been developed to complement each other.

The following principles will guide the community design to ensure quality implementation:

- Use architecture that is reminiscent of the character of Early California.
- Use architectural elements and details that reinforce the architectural styles.
- Choose appropriate massing, roof forms, colors and materials to define the architectural styles.
- Ensure that plans and styles provide a degree of individual identity while being compatible.
- Provide a varied and interesting street-scene that enhances the overall community.
- Use a plant palette that is drought tolerant, compatible with the natural open spaces, and reduces fire hazards.
- Celebrate the views of the surrounding area and reduce disturbance to natural topography where possible.

3.1.7.2 Standard Conditions

- Prior to the issuance of a Zoning Clearance for building permits, the applicant shall submit to the Community Development Director for review and approval a full set of Landscaping and Irrigation Plans prepared by a licensed landscape architect and drawn on a plan that reflects final grading configuration, in conformance with the City of Moorpark Landscape Standards and Guidelines, policies and NPDES requirements.

3.1.7.3 Mitigation Measures

The following mitigation measures are required to mitigate significant project view impacts of on-site features.

AES-1: To help minimize the short-term visual effects of mass grading, all manufactured slopes shall be hydro-mulched in conjunction with the grading process to prevent soil erosion and provide an environment conducive to plant growth. The seed mix used in the hydro-mulch slurry shall consist of a blend of fast-growing annual grasses and summer flowering forbs.

Timing/Implementation: During grading activities

Enforcement/Monitoring: City of Moorpark Community Development, Public Works, and Parks, Recreation & Community Services Departments

AES-2: To minimize the change in the visual character of the site landscape screens must be placed around detention and debris basins in Planning Area 1, and below Planning Area 4 to limit views of these areas. These plantings must emphasize native species and shall comply with the City's Landscape Guidelines. At maturity, the landscaping shall be of a sufficient size to screen the detention basins.

Timing/Implementation: Prior to grading permit issuance

Enforcement/Monitoring: City of Moorpark Community Development Department

AES-3: Prior to issuance of a grading permit, a lighting plan prepared by a lighting consultant consistent with the Specific Plan Design Guidelines Lighting Concept shall be submitted to the City of Moorpark Department of Community Development for review and approval by the Community Development Director. The lighting plan shall incorporate 0.5 foot-candle as a threshold for spill and the minimum streetlamp glare level of 2.0 foot-candles. All fixtures shall utilize shields to direct light downward, and the lighting plan shall also incorporate other "dark sky" friendly measures to the extent feasible. Such measures may include, but are not limited to, the following or other comparable measures:

- Use lighting fixtures that are adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties.
- Restrict the operation of outdoor lighting for construction and operation activities to the hours of 7:00 a.m. to 10:00 p.m.
- Use high pressure sodium and/or cut-off fixtures instead of typical mercury-vapor fixtures for outdoor lighting.

- Use unidirectional lighting to avoid light trespass onto adjacent properties.
- Design exterior lighting to confine illumination to the project site, and/or to areas which do not include light-sensitive uses.
- Provide structural and/or vegetative screening from light-sensitive uses.
- Shield and direct all new street and pedestrian lighting away from light-sensitive off-site uses.
- Architectural lighting shall be directed onto the building surfaces and have low reflectivity to minimize glare and limit light onto adjacent properties.

(Identical to MM BR-13)

Timing/Implementation: Prior to grading permit issuance

Enforcement/Monitoring: City of Moorpark Community Development Department

AES-4: When installed, all street lighting fixtures shall be tested and adjusted to ensure that light levels do not exceed 2.0 foot-candles of glare and 0.5 foot-candle of spill at the project boundaries. Testing of street lighting fixtures shall be conducted by factory-trained and -employed technicians only contracted for by the master developer and subject to the approval of the Community Development Director. (Identical to MM BR-14)

Timing/Implementation: Following street lighting installation

Enforcement/Monitoring: City of Moorpark Community Development Department

3.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the Specific Plan would significantly alter the visual characteristics of the site. Grading activities would affect several of the significant ridgelines that transverse the Specific Plan site. The westernmost viewshed (Open Space) would be generally unaffected by development; under the proposed project, this portion of the Specific Plan site would be retained as open space. The remainder of the Project site would be converted from undeveloped open space to the development as provided for by the Specific Plan. Existing vacant land would be developed with residential and recreational uses that would be visible. As a result of the implementation of the Specific Plan, the project would have a significant impact to the existing scenic vista. **Mitigation Measures AES-1** and **AES-2** would help mitigate the impacts both during and following construction. However, impacts to the existing scenic vista of the undeveloped site would remain significant and unavoidable.

The project overall would largely be consistent with the Hillside Management Ordinance. Further, Chapter 17.38.030 M of the Hillside Management Ordinance allows the City to approve a Development Agreement to exempt a project from the requirements of the Ordinance. The applicant will be requesting a Development Agreement for this project and an exemption will be required. Once negotiated and granted, impacts related to the Hillside Management Ordinance would be considered less than significant.

Implementation of the Specific Plan would result in potentially significant project light impacts with respect to the surrounding residences. However, implementation of **Mitigation Measure AES-3** and **AES-4** would mitigate this impact to a less than significant level.

3.2 AIR QUALITY

INTRODUCTION

This section describes the ambient air quality of the local and regional area and provides a comparison of existing air quality to applicable state and federal pollutant standards. In addition, sources of air emissions in the vicinity of the Project site are identified and discussed. This section also identifies the plans and policies developed in efforts to improve air quality. Finally, this section evaluates potential air quality impacts associated with construction and operation of the Proposed Project and identifies mitigation measures to reduce those potential impacts. Sources utilized in this discussion include the Ventura County Air Pollution Control District (VCAPCD) Air Quality Management Plan (AQMP)[1]*, air quality data from the* California Air Resources Board (CARB)*, and the* Ventura County Air Quality Assessment Guidelines*. Air emission calculations conducted for the Specific Plan are contained within* ***Appendix 3.2-A*** *of this environmental impact report (EIR).*

This section also includes a Health Risk Assessment (HRA) which was conducted to predict the off-site concentration of pollutants resulting from project construction and operation, so that lifetime excess cancer risk and non-cancer health risk could be predicted. The HRA was conducted following methods in the Office of Environmental Health Hazard Assessment's (OEHHA) Guidance Manual for Preparation of Health Risk Assessments and CAPCOA's Air Toxics Hot Spots Program. The HRA and calculations conducted for the HRA are contained within ***Appendix 3.2-B*** *and* ***3.2-C*** *of this environmental impact report (EIR).*

3.2.1 REGULATORY FRAMEWORK

Air quality within the South Central Coast Air Basin (SCCAB) is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy making, education, and other programs. The agencies primarily responsible for improving the air quality within the SCCAB (Ventura County Area) include the U.S. Environmental Protection Agency (U.S. EPA), CARB, Southern California Association of Governments (SCAG), VCAPCD, and the City of Moorpark.

1 2016 Ventura County Air Quality Management Plan. Adopted by the Ventura County Air Pollution Control Board on February 14, 2017. Available online at: http://www.vcapcd.org/pubs/Planning/AQMP/2016/Final/Final-2016-Ventura-County-AQMP.pdf

3.2.1.1 Federal Regulations

U.S. Environmental Protection Agency

The U.S. EPA is responsible for enforcing the federal Clean Air Act (CAA) and the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for seven criteria pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter (PM10), fine particulate matter (PM2.5), and lead (Pb). The prescribed levels are considered to be the maximum levels of ambient (background) air pollutants determined to be safe (with an adequate margin of safety) for the public health and welfare.

The 1990 CAA Amendments were enacted to better protect the public's health and create more efficient methods of lowering pollutant emissions. The major areas of improvement addressed in the amendments include air basin designations, automobile/heavy-duty engine emissions, and toxic air pollutants. The U.S. EPA designates air basins as being in attainment or nonattainment for each of the seven criteria pollutants. Nonattainment air basins are ranked (marginal, moderate, serious, severe, or extreme) according to the degree of nonattainment. An air basin in nonattainment is then required to submit a State Implementation Plan (SIP) that describes how the state will achieve federal standards by specified dates. The Ventura County portion of the SIP consists of the *Ventura County Air Quality Management Plan* (discussed later in this EIR section) and the *Ventura County Air Pollution Control District Rules and Regulations.* The extent of a given SIP depends on the severity of the air quality condition within the state or specific air basin. The status of the Ventura County portion of the SCCAB with respect to attainment with the NAAQS is summarized in **Table 3.2-1, National Ambient Air Quality Standards and Status – South Central Coast Air Basin (Ventura County)**.

Table 3.2-1
National Ambient Air Quality Standards and Status
South Central Coast Air Basin (Ventura County)

Pollutant	Designation/Classification
Ozone (O_3)	Nonattainment (Serious)
Carbon Monoxide (CO)	Attainment/Unclassifiable
Nitrogen Dioxide (NO_2)	Attainment/Unclassifiable
Sulfur Dioxide (SO_2)	Attainment/Unclassifiable
Respirable Particulate Matter (PM10)	Attainment/Unclassifiable
Fine Particulate Matter (PM2.5)	Attainment/Unclassifiable
Lead (Pb)	Attainment

Source: United States Environmental Protection Agency, "Current Nonattainment Counties for All Criteria Pollutants," https://www3.epa.gov/airquality/greenbook/ancl.html. 2019.

In response to rapid population growth and the associated rise in motor vehicle operations, the 1990 CAA Amendments addressed tailpipe emissions from automobiles, heavy-duty engines, and diesel fuel engines. The amendments established more stringent standards for hydrocarbons, nitrogen oxides (NO_X), and CO emissions in order to reduce the ozone and carbon monoxide levels in heavily populated areas. Under the 1990 Amendments, new fuels were required to be less volatile, contain less sulfur (particular to diesel fuels), and have higher levels of oxygenates (oxygen-containing substances to improve fuel combustion). The U.S. EPA also has regulatory and enforcement jurisdiction over emission sources beyond state waters (outer continental shelf), and sources that are under the exclusive authority of the federal government, such as aircraft, locomotives, and interstate trucking. Due to the lack of a substantial reduction in toxic emissions under the 1977 CAA, the 1990 CAA Amendments listed 189 hazardous air pollutants (HAPs), which are carcinogenic, mutagenic, and/or reproductive toxicants, to be reduced. This program (the 1990 CAA Amendments) involves locating all major (greater than 10 tons/year) and area emission sources and implementing Maximum Achievable Control Technology (MACT) to reduce HAP emissions and their associated health impacts.

3.2.1.2 State Regulations

California Air Resources Board

The California Air Resources Board (CARB), a branch of the California Environmental Protection Agency (Cal/EPA), oversees air quality planning and control throughout California. It is primarily responsible for ensuring the implementation of the California Clean Air Act (CCAA), responding to federal CAA

requirements, and regulating emissions from motor vehicles and consumer products within the state. In addition, CARB also sets health-based air quality standards and control measures for toxic air contaminants (TACs). However, CARB's research primarily focuses on automobile emissions, as they are the largest contributor to air pollution in California. Under the 2013 Clean Air Act Waiver, CARB established new standards for vehicles sold in California and for various types of equipment available commercially. It also sets fuel specifications to further reduce vehicular emissions.

The CCAA established a legal mandate for air basins to achieve the California ambient air quality standards by the earliest practicable date. These standards apply to the same seven criteria pollutants as the federal CAA and also include sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. State standards are more stringent than the federal standards, and in the case of PM10 and SO_2, far more stringent.

CARB supervises and supports the regulatory activities of local air quality districts and monitors ambient air quality itself. *Health and Safety Code* Section 39607(e) requires CARB to establish and periodically review area designation criteria. These designation criteria provide the basis for CARB to designate areas of the state as "attainment," "nonattainment," or "unclassified" according to state standards. In addition, *Health and Safety Code* Section 39608 requires CARB to use the designation criteria to classify areas of California and to annually review those area designations.

Air Pollutants of Concern

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards for outdoor concentrations. The federal and state standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons such as children, pregnant women, and the elderly, from illness or discomfort. Criteria air pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter 2.5 microns or less in diameter (PM2.5), particulate matter ten microns or less in diameter (PM10), and lead (Pb). Note that reactive organic gases (ROGs), which are also known as reactive organic compounds (ROCs) or volatile organic compounds (VOCs), and nitrogen oxide (NOx) are not classified as criteria pollutants. However, ROGs and NOx are widely emitted from land development projects and participate in photochemical reactions in the atmosphere to form O_3; therefore, NOx and ROGs are relevant to the Proposed Project and are of concern in the air basin and are listed below along with the criteria pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in **Table 3.2-2, Criteria Pollutants Summary of Common Sources and Effects**.

Table 3.2-2
Criteria Pollutants Summary of Common Sources and Effects

Pollutant	Major Man-Made Sources	Human Health & Welfare Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuels is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include moto vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O_3)	Formed by a chemical reaction between volatile organic compounds (VOC) and nitrous oxides (NOx) in the presence of sunlight. VOCs are also commonly referred to as reactive organic gases (ROGs). Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles, and dyes.
Particulate Matter (PM10 & PM2.5)	Produced by power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO_2)	A colorless, nonflammable gas formed when fuel containing sulfur is burned; when gasoline is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant; aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Lead (Pb)	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Lead particularly affects young children and infants. It is still found at high levels in urban and industrial areas, and deposits on soil and water and harms animals and fish. Although overall blood lead levels have decreased since 1976, infants and young children still have the highest blood lead levels. Children and others can be exposed to lead not only through the air, but also through accidentally or intentionally eating soil or paint chips, as well as food or water contaminated with lead.

Source: CAPCOA, Health Effects. Available: http://www.capcoa.org/health-effects/

The status of the SCCAB with respect to attainment under the CAAQS is summarized in **Table 3.2-3, California Ambient Air Quality Standards and Status – South Central Coast Air Basin (Ventura County)**.

Table 3.2-3
California Ambient Air Quality Standards and Status
South Central Coast Air Basin (Ventura County)

Pollutant	Designation/Classification
Ozone (O_3)	Nonattainment
Carbon Monoxide (CO)	Attainment
Nitrogen Dioxide (NO_2)	Attainment
Sulfur Dioxide (SO_2)	Attainment
Respirable Particulate Matter (PM10)	Nonattainment
Fine Particulate Matter (PM2.5)	Attainment
Lead (Pb)[1]	Attainment
Sulfates (SO_4)	Attainment
Hydrogen Sulfide (H_2S)	Unclassified
Vinyl Chloride[1]	Unclassified
Visibility-reducing Particles	Unclassified

Source: California Air Resources Board, "Area Designations Map/State and National," http://www.arb.ca.gov/desig /adm/adm.htm. 2018.

[2] *CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined.*

3.2.1.3 Local Regulations

Local governments, such as the City of Moorpark, have the authority and responsibility to reduce air pollution through their police power and land use decision-making authority. Specifically, local governments are responsible for the mitigation of emissions resulting from land use decisions and for the implementation of transportation control measures as outlined in the Air Quality Management Plan (AQMP). The AQMP assigns local governments certain responsibilities to assist the VCAPCD in meeting air quality goals and policies. In general, a first step toward implementation of a local government's responsibility is accomplished by identifying air quality goals, policies, and implementation measures in its general plan. Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality by requiring such improvements as bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with California Environmental Quality Act (CEQA) requirements and the CEQA review process, local governments assess air quality impacts, require mitigation of potential air quality impacts by conditioning discretionary permits, and monitor and enforce implementation of such mitigation.

Ventura County Air Pollution Control District

The management of air quality in Ventura County is the responsibility of the VCAPCD. The VCAPCD is responsible for bringing air quality in the County into conformity with federal and state air quality standards. Specifically, the VCAPCD has the responsibility to monitor ambient air pollutant levels throughout the County and to develop and implement attainment strategies to ensure that future emissions will be within federal and state standards. These attainment strategies form the basis for the AQMP, which is continuously updated to reflect changes in control strategies mandated by updates of the federal and state CAAs.

To implement these strategies, the VCAPCD Board has adopted specific rules and regulations to limit emissions from stationary and mobile sources and activities within the County. These rules and regulations identify specific pollution-reduction measures, which must be implemented in association with various uses and activities. These rules not only regulate the emissions of criteria pollutants, but also emissions of TACs and HAPs. The rules and regulations are subject to ongoing refinement by the VCAPCD. Enforcement of these rules and regulations is carried out through a permitting process that monitors emissions generated by stationary sources, such as power plants, manufacturing operations, and large and small businesses, that use products that release ozone-forming precursors or TACs into the atmosphere. The Proposed Project would be subject to the VCAPCD rules and regulations to reduce project-related emissions and minimize potential air quality impacts.

In addition to permitting stationary sources, the VCAPCD Air Quality Planning and Evaluation Section administers the CEQA program for Ventura County, which is used to review and comment on the adequacy of environmental documents such as this EIR. It recommends thresholds for determining whether projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. The *Ventura County Air Quality Assessment Guidelines*, adopted in October 2003, is the most up-to-date document that local government agencies and consultants use to prepare environmental documents for projects subject to CEQA.[2] This document describes the criteria and methods required to mitigate construction and operational emissions from planned developments to ensure compliance with the VCAPCD AQMP.

VCAPCD is responsible for limiting the amount of emissions that can be generated throughout Ventura County by various stationary and area sources. Specific rules and regulations have been adopted by the

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2 Ventura County Air Quality Assessment Guidelines. Adopted in October 2003. Available online at: http://www.vcapcd.org/pubs/Planning/VCAQGuidelines.pdf.

VCAPCD that limit the allowed amount of emissions generated by various uses and activities, and that identify specific pollution-reduction measures that must be implemented for various uses and activities.[3]

Stationary emission sources subject to these rules are generally regulated through VCAPCD's permitting process. Some activities associated with the project may be subject to VCAPCD rules and regulations. With regard to project development, the following rules may apply:

- **Rule 50 (Opacity) –** This rule sets opacity standards on the discharge from sources of air contaminants. This rule would apply during construction of the proposed project, specifically grading activities.

- **Rule 51 (Nuisance) –** This rule prohibits any person from discharging air contaminants or any other material from a source that would cause injury, detriment, nuisance, or annoyance to a considerable number of persons or the public, or which endangers the comfort, health, safety, or repose of a considerable number of persons or the public.

- **Rule 55 (Fugitive Dust) –** This rule sets restrictions on activities, including grading, demolition, and construction that could potentially cause visible dust emissions.

- **Rule 57.1 (Particulate Matter from Fuel Burning Equipment) –** This rule sets restrictions on the particulate matter emissions from fuel input for boilers, steamers, process heaters, water heaters, space heaters, flares and gas turbines.

- **Rule 68 (Carbon Monoxide)** – This rule sets a limit on the concentration of carbon monoxide (CO) that can be emitted.

- **Rule 74.2 (Architectural Coatings) –** This rule sets limits on the volatile organic compound (VOC) content of architectural coatings manufactured, blended, sold, or offered for sale within VCAPCD's jurisdiction. The rule also sets container-labeling requirements for businesses or individuals manufacturing or supplying architectural coatings. Architectural coating products used for the proposed project are required to comply with the standards set forth in this rule.

- **Rule 74.4 (Cutback Asphalt) –** This rule sets limits on the type of application and ROC content of cutback and emulsified asphalt. The proposed project is required to comply with the type of application and ROC content standards set forth in this rule for cutback and emulsified asphalt.

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3 *Ventura County Air Pollution Control District, Rules and Regulations.*

- **Rule 74.9 (Stationary Internal Combustion Engines)** – This rule sets limits on NOx, ROC, and CO emissions on stationary spark-ignited or diesel internal combustion engine rated at 50 or more horsepower, operated on any gaseous fuel, including liquid petroleum gas (LPG), or liquid fuel.

- **Rule 74.11 (Natural Gas-Fired Residential Water Heaters – Control of NO_x) –** This rule sets a NO_x emission limit (40 nanograms of NO_x per joule of heat output) for natural gas-fired residential water heaters. Residential water heaters must also comply with certification and compliance report requirements specified in this rule. Residential water heaters that do not comply with these standards are not to be sold, offered for sale, or installed within Ventura County.

Ventura County Air Quality Management Plan

As discussed previously, the federal and state CAAs require preparation of plans to reduce air pollution to acceptable levels. The VCAPCD has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs), the most recent of which is the 2016 AQMD and was adopted by the VCAPCD Control Board on February 14, 2017. The 2016 AQMP is designed to comply with the provisions of the 1990 amendments to the federal CAA and the 1988 CCAA, accommodate growth, reduce the levels of pollutants within the County, and identify a control strategy to reduce ozone-forming emissions from mobile and stationary sources. Based upon the emission control strategies proposed in the 2016 AQMP, it was predicted that Ventura County would attain the federal 8-hour ozone standard by the year 2020.

The primary objective of the 2016 AQMP is to provide continuous air pollutant emission reductions over time, with the goal of attaining the federal and state standards for ozone. Ventura County has been designated a moderate nonattainment area for the 8-hour ozone standard. On February 14, 2007, the VCAPCD and CARB requested that the County be redesignated a "serious" nonattainment area in order to receive a new attainment date of June 15, 2013. Although serious nonattainment areas are required to implement more stringent control measures than a moderate nonattainment area, the 2016 AQMP has been prepared to satisfy the CAA planning requirements for serious federal 8-hour nonattainment areas. Control programs to achieve the federal 8-hour ozone standard described in the 2016 AQMP focus on mobile sources, consumer products, and pesticides.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments for the six Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. As a regional planning agency, SCAG serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG also serves as the regional clearinghouse for projects requiring

environmental documentation under federal and state law. In this role, SCAG reviews projects to analyze their impacts on SCAG's regional planning efforts.

Although SCAG is not an air quality management agency, it is responsible for several air quality planning issues. Specifically, as the designated Metropolitan Planning Organization (MPO) for the Southern California region, it is responsible for providing current population, employment, travel, and congestion projections for regional air quality planning efforts and for determining conformity with the applicable air quality management plan, pursuant to Section 176(c) of the 1990 CAA Amendments. It is required to quantify and document the demographic and employment factors influencing expected transportation demand, including land use forecasts. Pursuant to *California Health and Safety Code* Section 40460 (b), SCAG is also responsible for preparing and approving portions of the basin's air quality management plans relating to demographic projections, and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. Though the most recent population, housing, and transportation measures and strategies are contained in the *Connect SoCal Plan* the current air quality management plan was based on the SCAG growth forecasting.

City of Moorpark General Plan

The following air quality goals and policies of the *City of Moorpark General Plan* are applicable to the proposed Hitch Ranch Specific Plan project.

Land Use Element

Goal 15: Maintain a high quality environment that contributes to and enhances the quality of life and protects public health, safety, and welfare.

Policy 15.4: Development which will not result in a negative impact on air quality shall be encouraged in order to maintain and enhance air quality for the health and well-being of City residences.

Circulation Element

Goal 7: Develop and encourage a transportation demand management system to assist in mitigating traffic impacts and in maintaining a desired level of service on the circulation system.

Policy 7.1: To reduce energy consumption, noise pollution and air pollution, employment generating developments shall provide incentives to

employees to utilize alternatives to the conventional automobile, such as walking, bicycles, carpools, vanpools, buses, and commuter rail.

Policy 7.7: The City shall develop a program for expending transportation demand management funds collected as mitigation for air quality impacts.

Open Space, Conservation & Recreation Element

Goal 4: Preserve and maintain the physical and biological environment from future growth-related degradation. In those areas where degradation is inevitable, ensure the restoration of affected areas.

Policy 4.1: Cooperate and participate in regional air quality management plans, programs, enforcement measures, and mitigation measures designed to reduce and/or minimize the amount of primary and secondary air pollutants.

3.2.2 EXISTING CONDITIONS

3.2.2.1 Climate and Meteorology

Southern California lies in a semi-permanent high-pressure zone of the Eastern Pacific region. The Mediterranean-type climate of Ventura County, as with all of Southern California, is regulated by the strength and location of the semi-permanent high-pressure center over the Pacific Ocean and the moderating effect of the nearby oceanic heat reservoir. Local climate conditions are characterized by dry, warm summers; mild, wet winters; infrequent rainfall; moderate daytime onshore breezes; and relatively low humidity. Summertime weather is dominated by the movement and intensity of the semi-permanent high-pressure system that is normally centered several hundred miles southwest of California. In the spring, summer, and fall, the climate is heavily influenced by marine air. Light winds in the region allow marine air to regulate temperatures and airflow during these periods. In the winter, low-pressure weather systems originating in the northern Pacific Ocean bring clouds, wind, and rain into Southern California. Santa Ana winds, caused by high pressure in the high plateau region northeast of California, occur intermittently during winter and fall.

The Southern California area has been divided into several geographical air basins. The County of Ventura is located within the South Central Coast Air Basin (SCCAB), which comprises Ventura, Santa Barbara, and San Luis Obispo Counties. The City of Moorpark experiences the mild, Mediterranean climate typical of Southern California. Average high temperatures in the Moorpark area range from 69 to 83 degrees

Fahrenheit and average low temperatures range from 41 to 57 degrees Fahrenheit. Precipitation averages 17.5 inches per year, with the majority of rainfall occurring from November through March.[4] Prevailing winds along the Ventura coast and City of Moorpark blow westerly and northwesterly. During the fall, Santa Ana winds reverse the prevailing airflow and bring dry, hot gusts that often have greater air movement.

There are four main meteorological conditions that affect air quality in the valley: a regional, semi-permanent high-pressure system; wind currents created or affected by local topography; Santa Ana winds; and seasonal storms. The dispersion of air pollutants in the Oxnard Plain Airshed, in which the City of Moorpark is located, is often restricted by frequent temperature inversions created by the semi-permanent high-pressure system. The temperature inversion is normally just below the summit areas of the surrounding mountains, which tend to trap air pollutants in a limited, near-surface atmospheric volume. From April through October, an onshore flow dominates the local wind patterns during daytime hours. This sea breeze flow is caused by surface heating from the sun. As the sun drops toward the horizon in the late afternoon, surface cooling precipitates a flow reversal or land breeze that lasts until just after sunrise. The combination of low wind speeds and strong inversion layers during this period results in high concentrations of pollutants near the ground. With the migration of the semi-permanent high-pressure system northward from October through March, frontal systems are allowed to move through the area bringing unstable conditions, and higher-speed, northeasterly winds dilute and disperse pollutants that accumulate in coastal areas and inland valleys, resulting in pollutant concentration reductions within the airshed. These storms account for much of the rainfall that Southern California receives annually and the periods of lower air pollutant concentrations.

3.2.2.2 Regional Setting

Regional Ambient Air Quality

Air emissions are generated by a variety of sources in the Ventura County. Motor vehicles traveling along local roadways are a major source. Agricultural activities such as diesel- and gasoline-powered equipment (e.g., tractors, trucks) and pesticide spraying also emit air pollutants. Commercial and residential land uses in proximity to the site also emit air pollutants in the form of household products and cleaners.

The determination of whether a region's air quality is healthful or unhealthful is made by comparing contaminant levels in ambient air samples to national and state standards. California and the federal government have established health-based air quality standards for the following criteria air pollutants: O_3, CO, NO_2, SO_2, PM10, PM2.5, and Pb. These standards were established to protect sensitive receptors

4 Weather.com, "Average Weather for Moorpark," https://weather.com/weather/monthly/l/USCA0728:1:US. 2018.

with a margin of safety from adverse health impacts due to exposure to air pollution. The California standards are more stringent than the federal standards, and in the case of PM10 and SO_2, much more stringent. California has also established standards for sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. The state and national ambient air quality standards for each of the monitored pollutants and their effects on health are summarized in **Table 3.2-4, Ambient Air Quality Standards**.

Table 3.2-4
Ambient Air Quality Standards

Air Pollutant	Averaging Time	California Standards	National Standards[1] Primary[2,3]	National Standards[1] Secondary[2,4]	Health and Other Effects
Ozone (O_3)	8-hour	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)	Same as primary	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage
	1-hour	0.09 ppm (180 µg/m³)	--[5]	--	
Carbon Monoxide (CO)	8-hour	9 ppm (10 mg/m³)	9 ppm (10 mg/m³)	--	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses
	1-hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	--	
Nitrogen Dioxide (NO_2)	Annual	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	Same as primary	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration
	1-hour	0.18 ppm (339 µg/m³)	0.100 ppm[6] (188 µg/m³)	--	
Sulfur Dioxide (SO_2)	Annual	--	0.030 ppm (80 µg/m³)[7]	-	Bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
	24- hour	0.04 ppm (105 µg/m³)	0.14 ppm (365 µg/m³) [7]	-	
	3-hour	-	-	0.5 ppm (1,300 µg/m³)	
	1-hour	0.25 ppm (655 µg/m³)	0.075 ppm[7] (196 µg/m³)	--	

Air Pollutant	Averaging Time	California Standards	National Standards[1] Primary[2,3]	National Standards[1] Secondary[2,4]	Health and Other Effects
Respirable Particulate Matter (PM10)	Annual	20 µg/m^3	--	--	a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in the elderly
	24-hour	50 µg/m^3	150 µg/m^3	Same as primary	
Fine Particulate Matter (PM2.5)	24-hour	No separate state standard	35 µg/m^3	--	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in the elderly
	Annual	12 µg/m^3	12 µg/m^3	--	
Lead	Calendar Quarter	--	1.5 µg/m^3	Same as primary	(a) Increased body burden; and (b) Impairment of blood formation and nerve conduction
	30-day Average	1.5 µg/m3	--	--	

Source: CARB, Ambient Air Quality Standards, accessed July 6, 2021 (https://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm)
ppm = parts per million by volume; µg/m^3 = microgram per cubic meter; mg/m^3 = milligrams per cubic meter.

1 *Standards, other than for ozone and those based on annual averages, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.*

2 *Concentrations are expressed first in units in which they were promulgated. Equivalent units given in parenthesis.*

3 *Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the U.S. Environmental Protection Agency (US EPA).*

4 *Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.*

5 *The national 1-hour ozone standard was revoked by US EPA on June 15, 2005. A new 8-hour standard was established in May 2008.*

6 *The form of the 1-hour NO_2 standard is the 3-year average of the 98th percentile of the daily maximum 1-hour average concentration.*

7 *On June 2, 2010 the US EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of the 1-hour daily maximum. The US EPA also revoked both the existing 24-hour and annual average SO_2 standards.*

Air quality of a region is considered to be in attainment of state standards if the measured ambient air pollutant levels for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM10, PM2.5 and visibility-reducing particles do not exceed the standards, and all other standards are not equaled or exceeded at any time in any consecutive three-year period.

3.2.2.3 Local Ambient Setting

Local Ambient Air Quality

To identify ambient concentrations of the criteria pollutants, the VCAPCD operates air quality monitoring stations throughout Ventura County. These stations are located in El Rio, Ojai, Piru, San Nicolas Island,

Simi Valley, Thousand Oaks, and Ventura. The monitoring stations located closest to the Proposed Project site and most representative of air quality within the Hitch Ranch Specific Plan area are the Simi Valley–Cochran Street and Thousand Oaks–Moorpark Road stations. Both stations monitor O_3 and PM2.5 while the Simi Valley monitoring station also monitors NO_2 and PM10. CO monitoring was eliminated in Ventura County in 2004 as part of network changes in response to the proposed National Monitoring Strategy set forth by the U.S. EPA. The decision to eliminate CO monitoring was approved by both the U.S. EPA and CARB. Ventura County has met the CO standard for some time now. In addition, SO_2 monitoring in Ventura County was eliminated in 2004 and ambient concentrations for lead and sulfate are well below the state standards.[5]

A summary of the monitored values for O_3, NO_2, PM10, and PM2.5 at the Simi Valley monitoring station for the past three years is presented in **Table 3.2-5, Simi Valley-Cochran Street Air Monitoring Station Ambient Pollutant Concentrations**. The values show that the Simi Valley monitoring station has registered values above state and/or federal standards for O_3, and PM10.

A summary of the monitored values for O_3 and PM2.5 at the Thousand Oaks monitoring station for the past three years is presented in **Table 3.2-6, Thousand Oaks-Moorpark Road Air Monitoring Station Ambient Pollutant Concentrations**. The values show that the Thousand Oaks monitoring station has registered values above state and federal standards for O_3.

Local Vicinity Emissions

The immediate vicinity of the Hitch Ranch Specific Plan Site, located north of main rail line that parallels Poindexter Avenue and west of the Walnut Canyon Elementary School, is characterized by residential development, light industry, and open spaces that are no longer under cultivation. Point sources include fast food restaurant charbroilers and a gas station located to the southeast of the site, while residential water and space heaters comprise the majority of the area source pollutants in the areas surrounding the site from west to northeast. Motor vehicles are the primary source of pollutants in the region. There are no large stationary sources that would impact the residents of the Proposed Project in the vicinity of the Project site.

Traffic-congested roadways and intersections have the potential for the generation of high localized CO levels in the proximity of a roadway (i.e., CO hotspots). Intersections classified as Level of Service (LOS) E or F are considered to be traffic-congested.[6] Based on the transportation impact analysis prepared for the Proposed Project (see **Appendix 3.15**), the Moorpark and Tierra Rejada Road intersection currently

5 Ventura County Air Pollution Control District, *Final 2009 Ambient Air Monitoring Network Plan*, (2009) 13.

6 Ventura County Air Pollution Control District, *Ventura County Air Quality Assessment Guidelines*, Section 6.4.1, (2003).

operates at LOS E during the AM peak hour. No intersections currently operate at LOS E or F during the PM peak hour. Therefore, one intersection of the studied roadway intersections has the potential to be a CO hotspot that could result in impacts on sensitive receptors during the AM peak hour under existing conditions (see **Appendix 3.15**). Under future (2026) conditions with ambient traffic growth, the Walnut Street and Championship Drive, Walnut Street and Spring Road intersection, the Spring Road and High Street intersection, the Grimes Canyon Road and Los Angeles Avenue intersection, the Somis Road and Los Angeles Avenue intersection, the Moorpark Road and Tierra Rejada Road intersection, the SR 23 northbound and southbound ramps intersections with Tierra Rejada Road, and the Moorpark Road and Santa Rosa Road intersection are forecasted to operate at LOS E or F during the AM and/or PM peak hours. Therefore, there are nine intersections of the studied roadway intersections with the potential to be CO hotspots that could result in impacts on sensitive receptors during the AM and/or PM peak hours under future (2026) conditions (see **Appendix 3.15**). The impact on localized CO hotspots due to ambient traffic growth plus the Proposed Project traffic in the year 2026 is analyzed under Impact AQ-2.

Table 3.2-5
Simi Valley-Cochran Street Air Monitoring Station Ambient Pollutant Concentrations

Pollutant	Standards[1]	Year		
		2016	2017	2018
OZONE (O_3)				
Maximum 1-hour concentration monitored (ppm)		0.101	0.103	0.101
Maximum 8-hour concentration monitored (ppm)		0.083	0.094	0.092
Number of days exceeding state 1-hour standard	0.09 ppm	1	3	2
Number of days exceeding federal/state 8-hour standard	0.070 ppm	7	20	14
NITROGEN DIOXIDE (NO_2)				
Maximum 1-hour concentration monitored (ppm)		0.039	0.046	0.043
Annual average concentration monitored (ppm)		0.008	0.008	0.008
Number of days exceeding state 1-hour standard	0.18 ppm	0	0	0
RESPIRABLE PARTICULATE MATTER (PM10)				
Maximum 24-hour concentration monitored ($\mu g/m^3$)		156.3	149.8	107.6
Annual average concentration monitored ($\mu g/m^3$)		22.9	24.0	23.5
Number of samples exceeding state standard	50 $\mu g/m^3$	4	9	6.1
Number of samples exceeding federal standard	150 $\mu g/m^3$	1	0	0
FINE PARTICULATE MATTER (PM2.5)				
Maximum 24-hour concentration monitored ($\mu g/m^3$)		34.9	31.3	29.6
Annual average concentration monitored ($\mu g/m^3$)		8.7	9.2	8.7
Number of samples exceeding federal standard	35 $\mu g/m^3$	0	0	0

Source: California Air Resources Board, "Air Quality Data Statistics," http://www.arb.ca.gov/adam/. 2019.
NA = not available
[1] *Parts by volume per million of air (ppm), micrograms per cubic meter of air ($\mu g/m^3$), or annual arithmetic mean (aam).*

Pollutant	Standards[1]	Year 2016	2017	2018

[2] *The 8-hour federal O_3 standard was revised from 0.075 ppm to 0.070 ppm in 2015. The statistics shown are based on the 2015 standard of 0.070 ppm.*

Table 3.2-6
Thousand Oaks-Moorpark Road Air Monitoring Station Ambient Pollutant Concentrations

Pollutant	Standards[1]	Year 2016	2017	2018
OZONE (O_3)				
Maximum 1-hour concentration monitored (ppm)		0.080	0.090	0.080
Maximum 8-hour concentration monitored (ppm)		0.076	0.073	0.073
Number of days exceeding state 1-hour standard	0.09 ppm	0	0	0
Number of days exceeding federal/state 8-hour standard	0.070 ppm	1	6	1
FINE PARTICULATE MATTER (PM2.5)				
Maximum 24-hour concentration monitored ($\mu g/m^3$)		35.2	32.0	41.5
Annual average concentration monitored ($\mu g/m^3$)		9.6	8.9	9.2
Number of samples exceeding federal standard	35 μg/m3	0	0	1

Source: California Air Resources Board, "Air Quality Data Statistics," http://www.arb.ca.gov/adam/. 2019.
NA = not available
[1] *Parts by volume per million of air (ppm), micrograms per cubic meter of air ($\mu g/m^3$), or annual arithmetic mean (aam).*
[2] *The 8-hour federal O_3 standard was revised from 0.075 ppm to 0.070 ppm in 2015. The statistics shown are based on the 2015 standard of 0.070 ppm.*

Existing Sources of TAC Emissions

The existing light-industrial uses located to the south of the southwestern portion of the Project site are the primary source of potential TAC emissions in the vicinity the Project site. Examples of TAC emissions that could be generated by various uses within this area of the project are listed in **Table 3.2-7, Examples of Toxic Air Emissions Potentially Generated Within Proposed Light Industrial Uses.** Each of these pollutants would be controlled in accordance with the permit requirements of the VCAPCD. Typical permit requirements would vary based on the particular use and could include such requirements as the installation of scrubbers. The permit process and implementation of conditions on a use-by-use basis would ensure that the light-industrial emissions do not exceed the limits established to protect public health and safety and that no permit to operate can be issued unless it is proven that emissions would not exceed the limits, typically by a health risk assessment conducted during the environmental review process. As a result, the Proposed Project would not locate sensitive receptors in close proximity to substantial sources of TACs and would result in a less than significant impact to on-site sensitive receptors.

In addition to area/stationary sources of TACs, mobile sources are also regional contributors to TAC emissions. CARB has determined that adverse health effects are generally elevated near heavily traveled roadways. The CARB guidance document, *Air Quality and Land Use Handbook*, recommends that lead agencies, where possible, avoid citing new sensitive land uses within 500 feet of a freeway,[7] urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. This recommendation is not mandated by state law, but only serves as a general guidance to lead agencies when considering land use projects. According to CARB, it is up to lead agencies to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.[8] The project would not locate sensitive land uses within 500 feet of freeways or heavily traveled roads. An analysis of the traffic report for the project indicated average daily trips much less than the 100,000 limit for urban roads (see **Appendix 3.10**). In addition, the nearest freeways (State Routes 23 and 118) are over 1-mile from the Project site. For these reasons, no significant impacts to on-site sensitive receptors are anticipated with respect to existing mobile source TACs.

Table 3.2-7
Examples of Toxic Air Emissions Potentially Generated Within Proposed Light Industrial Uses[1]

Light Industrial Use	Source Type	Toxic Air Emissions
Electrical Manufacturing	Transformer Plating	PCBs, Cadmium, Chromium, Nickel, Trichloroethylene, 1,4-Dioxane
Electronic Manufacturing	Plating, Etching	Cadmium, Chromium, 1,4-Dioxane, Nickel, Trichloroethylene,
Medical Equipment Sterilization Facility	Ethylene Oxide Sterilization Chamber	Ethylene Oxide
Fiberglass Manufacturing	Machine Operation with Baghouse	Styrene
Auto Machine Shop	Arc Grinders	Asbestos

Source type and toxic air emission from the South Coast Air Quality Management District, CEQA Air Quality Handbook, (1993) 5-12 – 5-13.
[1] *Permitted use in M-1 Zone per Moorpark Municipal Code with administrative permit, development permit or conditional use permit.*

7 California Air Resources Board, *Air Quality and Land Use Handbook*, (2005) 8-9. The 2002 study of impacts along the San Diego (I-405) Freeway and the Long Beach (I-710) Freeway cited by CARB in its Air Quality and Land Use Handbook found a substantial reduction in pollutant concentrations, relative exposure, and health risk beyond 300 feet.

8 California Air Resources Board, *Air Quality and Land Use Handbook*, (2005) 4.

3.2.3 THRESHOLDS OF SIGNIFICANCE

3.2.3.1 CEQA Significance Thresholds

In accordance with *State CEQA Guidelines* (Appendix G), the following significance threshold criteria should be used to evaluate the potential air quality impacts of projects within the City of Moorpark and Ventura County. The project would have a significant air quality impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan,
- 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,
- Expose sensitive receptors to substantial pollutant concentrations, or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The *State CEQA Guidelines* (Section 15064.7) provide that, when available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make determinations of significance. The potential air quality impacts of the Proposed Project are, therefore, evaluated according to thresholds developed by the VCAPCD in its *Ventura County Air Quality Assessment Guidelines (VCAPCD Guidelines)* and subsequent guidance, which are listed below. While the VCAPCD *Ventura County Air Quality Assessment Guidelines* contains significance thresholds for lead using the California and the federal government ambient air quality standards and thresholds as noted above in Table 3.2-3, construction and operation of the Project will not exceed these established thresholds. Furthermore, as discussed near the beginning of this section, the region is below the state and federal ambient air quality standards for lead. Therefore, lead emissions from the Project will not cause an air quality violation and will not be analyzed further.

3.2.3.2 Project-level Air Quality Significance Thresholds

Ozone Precursors

The VCAPCD has issued thresholds for determining the level of significance for project-specific developments within Ventura County. Projects exceeding any of the criteria in the long term are considered to have significant impacts. The following are ROC and NO_x thresholds that the VCAPCD has determined will individually and cumulatively jeopardize attainment of the federal ozone standard, which will result in a significant adverse impact on air quality in Ventura County:

- Reactive Organic Compounds (ROC): 25 pounds per day.
- Nitrogen Oxides (NO_x): 25 pounds per day.
- A project which may cause an ambient air quality standard (state or federal) to be exceeded, or makes a substantial contribution to an already existing air quality standard. Substantial is defined as making measurably worse an existing or federal ambient air quality standard that is exceeded.

Toxic Air Contaminants

The *VCAPCD Guidelines* include significance thresholds for evaluating the health effects of TACs. The VCAPCD suggests the following thresholds in determining the significance of TACs from the construction and operation of proposed projects:

- If the proposed project would result in a lifetime probability of contracting cancer that is greater than 10 in 1 million (10 x 10-6); and;
- If the proposed project would cause a Health Hazard Index of 1 or greater when evaluating for non-carcinogenic effects of TACs.

Odors

The VCAPCD Guidelines recommend that a proposed project include an assessment of the potential to cause a public nuisance by subjecting surrounding land uses to objectionable odors. A public nuisance is defined by VCAPCD Rule 51 (Nuisance) as "…such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or to the public, or which cause, or have a natural tendency to cause, injury or damage to business or property."[9] The assessment also should evaluate the potential for a proposed project to be impacted by objectionable odors from nearby existing or proposed land uses. Any project that has the potential to create a public nuisance by subjecting members of the public to objectionable odors should be deemed to have a significant odor impact.

Valley Fever

San Joaquin Valley Fever (formally known as Coccidioidomycosis) is an infectious disease caused by the fungus *Coccidioides immitis*. Infection is caused by inhalation of *Coccidioides immitis* spores that have become airborne when dry, dusty soil or dirt is disturbed by wind, construction, farming, or other activities. The

9 Ventura County Air Pollution Control District, *Ventura County Air Quality Assessment Guidelines*, (2003) 6-10.

Valley Fever fungus tends to be found at the base of hillsides, in virgin, undisturbed soil and is found in the southwestern United States. In its primary form, symptoms appear as a mild upper respiratory infection, acute bronchitis, or pneumonia. The most common symptoms are fatigue, cough, chest pain, fever, rash, headache, and joint aches, although 60 percent of people infected are asymptomatic and do not seek medical attention. In the remaining 40 percent, symptoms range from mild to severe.

There is no recommended threshold for a significant San Joaquin Valley Fever impact. However, the following factors may indicate a project's potential to create significant Valley Fever impacts:

- Disturbance of the top soil of undeveloped land (to a depth of about 12 inches);
- Dry, alkaline, sandy soils;
- Virgin, undisturbed, non-urban areas;
- Windy areas;
- Archaeological resources probable or known to exist in the area (Native American midden sites);
- Special events (fairs, concerts) and motorized activities (motocross track, All Terrain Vehicle activities) on unvegetated soil (non-grass); and,
- Non-native population (i.e., out-of-area construction workers).

The lead agency should consider the factors above that are applicable to the project or the Project site. The likelihood that the Valley Fever fungus may be present and impact nearby land uses (or the project itself) increases with the number of the above factors applicable to the project or the Project site. Based on these or other factors, if a lead agency determines that project activities may create a significant Valley Fever impact, the VCAPCD recommends that the lead agency consider the Valley Fever mitigation measures listed in the VCAPCD Guidelines. These mitigation measures focus on fugitive dust control to minimize fungal spore entrainment, as well as minimizing worker exposure. These measures are included in **Construction Mitigation Measure MM AQ-1**, see **Section 3.2.6.2.**

3.2.3.3 Cumulative-level Air Quality Significance Thresholds

The *VCAPCD Guidelines* recommend the following thresholds for determining the level of significance for cumulative long-term impacts within Ventura County:

- Any individual general development project located outside the Ojai Valley Planning Area and Ventura 1 Non-Growth area capable of emissions of 25 pounds per day of ROC and NO_x both individually and cumulatively have a significant impact on air quality in the County.

- Any cumulative project group which may cause an ambient air quality standard (state or federal) to be exceeded, or makes a substantial contribution to an already exceeded air quality standard.

- Any individual project with emissions greater than two pounds per day of ROC or two pounds per day of NO_x that is found to be inconsistent with the AQMP will have a significant cumulative air quality impact. A project with emissions below two pounds per day of ROC, and below two pounds per day of NO_x, is not required to assess consistency with the AQMP.

- Any General Plan Amendment or revision which would provide directly or indirectly for increased population growth above that forecasted in the most recently adopted AQMP will have a significant air quality impact.

3.2.3.4 Methodology

Construction and operational criteria air pollutant emissions were calculated in the California Emissions Estimator Model (CalEEMod) Version 2020.4.0 and were compared to the VCAPCD's operational significance thresholds. The project characteristics in the CalEEMod model were set to a project location of VCAPCD, a Climate Zone of 8, and a project opening year of 2027. The construction schedule was provided by the Project Applicant and includes the phased buildout outlined in **Table 2.0-3** in **Section 2.0, Project Description**, and described in more detail below. Construction equipment used for each phase was based on CalEEMod defaults. It was assumed Phase 1 would involve approximately 3.9 million cubic yards of earth material movement and Phase 3 would involve approximately 1.5 million cubic yards of earth material movement; however, grading would be balanced on-site with no off-site export or import required. The CalEEMod default estimates for construction worker and vendor trips for the building construction and architectural coating phases as well as the default estimates for the square footage for exterior and interior architectural coating were adjusted to reflect the proportion of plan buildout anticipated for each construction sub-phase.[10] For project operation, the default trip length values for residential land uses were adjusted to match the project's estimated 33,585 daily VMT, or 12,258,525 annual VMT, which is based on the VMT analysis contained in **Section 3.15, Transportation**. For both project construction and operation, the CalEEMod default values for the ROC content of architectural coatings was adjusted to reflect compliance with VCAPCD Rule 74.2, which sets an ROC content limit of 50 grams per

[10] By default, CalEEMod assumes full plan buildout during each building construction and architectural coating phase. Therefore, adjustments are necessary to account for the proposed phased buildout of the Specific Plan.

liter for flat, nonflat, and nonflat – high gloss coatings. Additionally, in order to calculate the health risk posed to the nearest residential and school receptors, the concentration of diesel particulate matter (DPM) was calculated with the U.S. EPA's AERMOD, an air dispersion modeling tool, and the cancer risk was estimated with OEHHA and CAPCOA's latest guidance.

3.2.4 PROJECT IMPACTS

Impact AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.

Less than Significant

As discussed earlier in this air quality impact analysis, the 2016 AQMP is designed to accommodate growth, to reduce the high levels of pollutants within the County, and to identify a control strategy representing the full implementation of known technology to reduce ozone-forming emissions from mobile and stationary sources. According to the VCAPCD, inconsistent projects are usually those which cause the jurisdiction's AQMP population projections to be exceeded by a substantial amount, or for an indefinite period of time.[11] For residential projects, a finding of inconsistency would be made if the project would cause the area in which it would be located to exceed the AQMP population forecasts.[12] The Proposed Project's consistency with the AQMP is discussed below. Inconsistency is considered a significant cumulative air quality impact.

Population Forecast Consistency

According to the Southern California Association of Government's (SCAG) population projections from the Connect SoCal 2020 RTP/SCS, the City of Moorpark had an estimated population of 36,700 persons as of 2016, with a forecasted population of 42,200 in the year 2045, an increase in population by 5,500 residents.[13] As discussed in **Section 3.11, Population and Housing**, the Proposed Project is expected to increase the population within the City by approximately 2,492 persons. This would not provide directly or indirectly for increased population growth above that forecasted in the most recently adopted AQMP. As such, Project-generated emissions have been accommodated in the AQMP emissions forecasts, and the Proposed Project would not jeopardize attainment of air quality standards in Ventura County. Therefore, the Proposed Project is considered consistent with the AQMP.

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11 Ventura County Air Pollution Control District. *Ventura County Air Quality Assessment Guidelines*, October 2003.

12 Ibid., p. 4-2.

13 SCAG Connect SoCal 2020 RTP/SCS Demographics and Growth Forecast https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579, accessed July 5, 2021.

Furthermore, the Plan includes various emission reduction strategies and project features that are included in the AQMP and *Ventura County Air Quality Assessment Guidelines*. These Project Features, aimed at reducing Project emissions by encouraging transit and pedestrian modes, include providing street lighting, bus turnouts, pedestrian signalization, sidewalks, and route signs and displays. Therefore, the Plan is consistent with emission reduction strategies included in the AQMP, and cumulative impacts are less than significant.

Local Jurisdiction Implementation of the AQMP

Many of the AQMP assumptions rely on transportation control measures implemented by local jurisdictions. On December 7, 1988, the City Council of the City of Moorpark adopted a resolution to implement reasonably available transportation control measures from the AQMP.[14] Included within this resolution are ridesharing programs, traffic flow improvements, land use strategies, transit programs, and non-motorized strategies which are consistent with the strategies identified in the AQMPs. The City continues to implement these and other transportation control measures proposed in the City's resolution on a local level. Therefore, the City is consistent with the region's commitment to improve local air quality.

Consistency with the Moorpark General Plan

The Plan is required to be consistent with the policies outlined in the *City of Moorpark General Plan*. In general, the City's General Plan supports the VCAPCD and CARB's mission to protect public health and welfare from the adverse effects of air pollution, but it does not list any specific thresholds for assessing the significance of a project's emissions.

Residential projects are not typically associated with large point sources that could potentially impact the health and well-being of adjacent residences. In addition, the new residential homes would be built compliant with Green Building standards and exceeding Title 24. Furthermore, some residents of the Proposed Project would be walking and biking distance from the Moorpark downtown area and within 0.5 to 1.1 miles of the Metrolink train station, the City donation parcel is approximately a quarter-mile from the Civic Center and less than a half mile to downtown. The proximity to a commercial and employment center would reduce vehicle trips in the region, thereby reducing air emissions. The Plan is designed to be consistent with the goals and policies of the Moorpark General Plan, including through the implementation of a Transportation Demand Management (TDM) fund.

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14 Ventura County Air Pollution Control District, *Resolutions of Commitment to Implement Reasonably Available Transportation Control Measures from the 1987 Ventura County Air Quality Management Plan*, December 1988.

Therefore, the Plan would not conflict with or obstruct implementation of the AQMP, impacts would be less than significant.

Impact AQ-2 **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.**

Less than Significant with Mitigation (Construction Phase)

Significant and Unavoidable (Operational Phase)

Construction

Emissions and Fugitive Dust

During the grading and construction phases of development, air emissions (ROC and NO_x) would be generated by on-site stationary sources, heavy-duty construction vehicles, construction worker vehicles, and energy use during the construction phase. In addition to grading and construction vehicle emissions, fugitive dust (PM10 and PM2.5) would also be generated during grading and construction activities. While much of this airborne dust would settle out of, or near, the development area, smaller particles would remain in the atmosphere, increasing existing particulate levels within the surrounding area. Regular watering of unpaved areas, which is one of the VCAPCD recommended measures, can reduce expected fugitive dust emissions, the level of dust suppression is dependent on the frequency of watering, amount of water added each application, the frequency of travel on the roadway, and meteorological conditions.[15] With implementation of watering unpaved roads as well as the other recommended measures as identified by the VCAPCD, fugitive dust would be further reduced.

Construction Phasing

The construction period for the Plan is anticipated to begin in June 2022 and last approximately 60 months. Development would occur in six phases.

Phase 1 would involve initial mass grading of the Plan area and installation of the proposed infrastructure (i.e., detention basins, road extensions and widenings, underground utilities, and connections to the Ventura County Water Protection District Easement). Mass grading operations would occur over 10 months in 2022 and would involve the movement of 3.9 million cubic yards of earth material to create the manufactured slopes. No soil would be exported or imported during grading activities; therefore, haul

15 U.S. EPA. 2006. AP 42, Section 13.2.2 Unpaved Roads. Available online at: https://www3.epa.gov/ttn/chief/ap42/ch13/final/c13s0202.pdf, accessed November 12, 2019.

trucks would not be used during grading operations to transport soil. Asphalt paving operations would occur over a 4-month period. Construction emissions were estimated using CalEEMod. Grading equipment required to complete the initial mass site grading was estimated using CalEEMod default values. Construction equipment was assumed to be stored on site during construction to minimize disruption of the surrounding land uses. Asphalt paving equipment was estimated using the CalEEMod default values. Phase 1 is expected to be completed over 12 months by 2023.

Phase 2 would consist of sub-grade construction (i.e., installation of necessary infrastructure) and above-grade construction (i.e., building construction) for approximately 250 single- and multi-family homes. Building construction activities during this phase on a worst-case day would involve the use of standard construction equipment also estimated by CalEEMod. Minimal fine grading would be required during this phase to prepare building pads. Phase 2 is expected to be completed in 18 months by 2024.

Phase 3 would involve the second phase of mass grading of the Project site and installation of proposed infrastructure in the western portion of the site including detention basins, road extensions and widenings and underground utilities. Mass grading operations would occur over four months in late 2023 and would involve the movement of approximately 1.5 million cubic yards of earth material. In this phase, paving operations would also occur over a four-month period. Phase 3 would take a total of 12 months and would be complete by 2024. This land development may have some overlap with housing construction in Phase 2.

Phase 4 would develop approximately 200 single- and multi-family homes and the necessary infrastructure necessary for their operation. In addition, a recreational lot and a passive recreational lot would be developed to serve the residents of the proposed residential units. On a worst-case day, building construction activities during this phase would involve the use of standard construction equipment estimated by CalEEMod. Minimal fine grading would be required during this phase to prepare building pads. Phase 4 is anticipated to be completed in 12 months by 2025.

Phase 5 would develop approximately 200 single- and multi-family homes and the infrastructure necessary for their operation. In addition, a recreational lot would be developed to serve the proposed residents. On a worst-case day, building construction activities during this phase would involve the use of standard construction equipment estimated by CalEEMod. Minimal fine grading would be required during this phase to prepare building pads. Phase 5 is anticipated to be completed in 12 months by 2026.

Phase 6 would develop approximately 105 single- and multi-family homes and the necessary infrastructure necessary for their operation. Building construction activities during this phase would involve the use of standard construction equipment estimated by CalEEMod. Minimal fine grading would be required during this phase to prepare building pads. Phase 6 is anticipated to be completed in 9 months by 2027.

Construction emissions were calculated using the CalEEMod emissions estimator. CalEEMod is the preferred model for projects within the VCAPCD.[16] **Table 3.2-8**, **Estimated Construction Emissions**, identifies estimated daily emissions that are associated with construction by year. These estimates are based on the expected location, size, and development of the project. The analysis assumes that all of the construction equipment and activities would operate continuously for 8-hours each day and that activities (e.g., construction, architectural coatings, and asphalt paving) would overlap. In reality, this would not occur, as most equipment would operate for only a fraction of each workday and many of the activities would not overlap on a daily basis. Therefore, the emissions shown in **Table 3.2-8** represent a worst-case scenario for construction activities.

Table 3.2-8
Estimated Construction Emissions

	Emissions in Pounds per Day					
Construction Year	**ROC**	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
2022	4	39	30	<1	16	6
2023	6	51	50	<1	18	7
2024	38	48	51	<1	18	7
2025	30	28	27	<1	10	5
2026	28	28	27	<1	10	5
2027	28	13	18	<1	1	1
Maximum Daily Emissions in Any Year:	**38**	**51**	**51**	**<1**	**18**	**7**

*Source: Rincon Consultants, Inc. December 2021. Emissions calculations are provided in **Appendix 3.2-A**.*
Assumes compliance with VCAPCD's fugitive dust control measures.

The primary construction-related source of NO_X and ROC emissions is heavy-duty construction equipment. Construction emissions of NO_X and ROC are not counted toward the adopted significance thresholds because VCAPCD considers them temporary.[17] VCAPCD recommends implementation of construction control measures if construction emissions exceed 25 pounds per day. For construction control measures, as recommended by VCAPCD, see VCAPCD Construction Control Measures **CM AQ-1** and **CM AQ-2**, and Construction Mitigation Measure **MM AQ-2**, in **Sections 3.2.6.1** and **3.2.6.2.**

The VCAPCD does not identify construction air quality impacts as the cause of significant air quality impacts assuming standard construction control measures, as called for by the District, are implemented during construction activities. Therefore, although short-term construction impacts would be considered a

16 VCAPCD. *Air Quality Assessment for CEQA*. Available online at: http://www.vcapcd.org/environmental-review.htm, accessed November 13, 2019.

17 VCAPCD. 2003. V*entura County Air Quality Assessment Guidelines*. Available online at: http://vcapcd.org/pubs/Planning/VCAQGuidelines.pdf, p. 5-4.

nuisance, with the implementation of recommended construction control measures, construction air quality impacts would be considered less than significant.

Valley Fever

Some health problems, particularly those of the eye and respiratory tract may be aggravated by fugitive dust. Such health problems include Coccidioidomycosis (also known by its common name, Valley Fever). Valley fever is contracted through breathing spores that become airborne through disturbance of the soil. However, Ventura County is not recognized as an area where Coccidioidomycosis is highly endemic.[18] According to the Center of Disease Control (CDC), the average number of cases of Valley Fever in Ventura County residents from 2011 to 2017 was 6.0 to 20.9 cases per 100,000 people.[19] The only large-scale outbreak in the County occurred in Simi Valley between January 24 and March 15, 1994, following the Northridge earthquake due to uncontrolled dust clouds created by landslides.[20,21] Grading associated with the Project would not result in fugitive dust emissions on the level of a Northridge earthquake. However, construction of Plan elements as described above will result in the disturbance of large amounts of topsoil on undeveloped land. Such land could contain the Valley Fever fungus, which is one of the factors listed above. While construction emissions during the initial year would not exceed 25 pounds per day of PM10, the Plan would result in the grading of approximately 5.4 million cubic yards (mcy) of soil, approximately 3.9 mcy during Phase 1 and approximately 1.5 mcy during Phase 3. Therefore, the Project is conservatively assumed to have a potentially significant impact with respect to Valley Fever and mitigation is required. See Construction Mitigation Measure **MM AQ-1**, **Section 3.2.6.2**.

Operation

Area/Stationary and Mobile Source Emissions

Operational emissions associated with the development and operation of the Project would result primarily from increased vehicular trips to and from the site. The number of vehicle trips was obtained from the traffic impact analysis for the Project (**Appendix 3.10**). Other sources of emissions would include new area/stationary sources such as water and space heaters and cooking appliances, landscape maintenance

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18 Eileen Schneider and others, "A Coccidioidomycosis Outbreak Following the Northridge, Calif. Earthquake," *Journal of American Medicine* Vol. 277, No. 11 (March 19, 1997): 904.

19 Centers for Disease Control and Prevention. Valley Fever Maps. Available online at: https://www.cdc.gov /fungal/diseases/coccidioidomycosis/maps.html, accessed November 13, 2019.

20 Schneider and others, "A Coccidioidomycosis Outbreak Following the Northridge, Calif. Earthquake," *Journal of American Medicine* Vol. 277, No. 11 (March 19, 1997): 904.

21 *Ibid*.

equipment, and consumer products. The estimated emissions associated with Project operation were calculated with the CalEEMod program, recommended for use by the VCAPCD.[22]

Average daily emissions associated with the Project are presented below in **Table 3.2-9**, **Estimated Project Daily Emissions at Buildout**. As shown, calculations indicate the Project would generate daily emissions of ROC that would exceed the VCAPCD's threshold of significance for operational emissions at Project buildout in 2027. These emissions would be significant without mitigation.

Table 3.2-9
Estimated Project Daily Emissions at Buildout

	Emissions in Pounds per Day					
Emissions Source	**ROC**	**NO_x**	**CO**	**SO_x**	**PM10**	**PM2.5**
Area Source	27	1	62	<1	<1	<1
Energy Source	<1	4	2	<1	<1	<1
Mobile Source	14	14	122	<1	27	7
Emissions Totals	41	19	185	<1	28	8
Recommended Threshold	25	25	—	—	—	—
Exceeds Threshold?	**Yes**	**No**	—	—	—	—

*Source: Rincon Consultants, Inc., December 2021. Emissions calculations are provided in **Appendix 3.2-A**.*
Totals in table may not appear to add exactly due to rounding in the computer model calculations.
[1] *"Summertime Emissions" are representative of worst-case conditions that may occur during the ozone season (May 1 to October 31).*
[2] *"Wintertime Emissions" are representative of worst-case conditions that may occur during the balance of the year (November 1 to April 30).*

The Proposed Project's impacts would be considered both individually and cumulatively significant without mitigation. Implementation of Operational Mitigation Measure **MM AQ-3** would reduce Project level and cumulative impacts to the extent feasible; however, as detailed in **Section 3.2.7**, impacts would remain significant and unavoidable.

Carbon Monoxide Hotspots

Motor vehicles are a primary source of pollutants within the project vicinity. Traffic congested roadways and intersections have the potential to generate localized levels of carbon monoxide (CO). Localized areas where ambient concentrations exceed state and/or federal standards are termed CO "hotspots." CO is produced in greatest quantities from vehicle combustion and is usually concentrated at or near ground level because it does not readily disperse into the atmosphere. As a result, potential air quality impacts to

22 VCAPCD. *Air Quality Assessment for CEQA.* Available online at: http://www.vcapcd.org/environmental-review.htm, accessed November 21, 2019.

sensitive receptors are assessed through an analysis of localized CO concentrations. Areas of vehicle congestion have the potential to create CO hotspots that exceed the state ambient air quality 1-hour standard of 20 ppm or the 8-hour standard of 9 ppm. The federal levels are less stringent than the state standards and are based on 1- and 8-hour standards of 35 and 9 ppm, respectively. Thus, an exceedance condition would occur, based on the state standards prior to exceedance of the federal standard.

Long-term operations of the Project would not result in exceedances of CO air quality standards at roadways in the area. This is due to three key factors. First, CO hotspots are extremely rare and only occur in the presence of unusual atmospheric conditions and extremely cold conditions, neither of which applies to the Plan area. Second, auto-related emissions of CO continue to decline because of advances in fuel combustion technology in the vehicle fleet. Finally, the Project would not contribute to the levels of congestion that would be needed to produce the amount of emissions needed to trigger a potential CO hotspot.

Screening analysis guidelines for localized CO hotspot analyses from Caltrans recommend that projects in CO attainment areas focus on emissions from traffic intersections where air quality may get worse.[23] Specifically, projects that significantly increase the percentage of vehicles operating in cold start mode, significantly increase traffic volumes, or worsen traffic flow should be considered for more rigorous CO modeling. The Proposed Project is not anticipated to significantly increase traffic volumes or worsen traffic flow. In addition, the Project would not significantly increase the percentage of vehicles operating in cold start mode or substantially worsen traffic flow.

In 2004, Ventura County stopped monitoring ambient CO, with the approval of the U.S. EPA because CO background concentrations in El Rio, Simi Valley, and Ojai were much lower than the State Ambient Air Quality Standard. Therefore, no CO hotspots are expected to occur anywhere in Ventura County and additional CO modeling analysis with the LOS comparison is not warranted. In addition, with over 80% of the CO in urban areas emitted by motor vehicles, and with stricter, cleaner emission standards to the mobile fleet, CO ambient concentrations should remain at or lower than the most recent CO monitoring data available for Ventura County. As a result, CO hotspots are not predicted to exist and cumulative impacts would not be significant.

As a result, no significant impacts would occur relative to future carbon monoxide concentrations. The impact would be less than significant, and no further analysis is required.

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23 *Caltrans, Transportation Project-Level Carbon Monoxide Protocol, updated October 13, 2010.*

Impact AQ-3 Expose sensitive receptors to substantial pollutant concentrations.

Less than Significant with Mitigation

Cancer and Non-Cancer Health Risks Temporary project impacts related to health risk can occur from Project construction activity, which would generate dust and equipment exhaust that could affect nearby sensitive receptors. Construction of the Project would include site clearance and grading, placement of utilities, building construction, paving, application of architectural coatings, and interior finishing. Construction equipment and associated heavy-duty truck trips generate exhaust which contains diesel particulate matter (DPM), known as a toxic air contaminant (TAC).

Operation would generate vehicle trips to and from residences. Since this is a residential project, most of the vehicle trips are expected to come from gasoline powered passenger cars. The site may attract some heavy-duty diesel trucks which emit DPM.

Construction and operational emissions were estimated from CalEEMod and dispersion modeling was conducted to predict the off-site concentration resulting from project construction and operation, so that lifetime excess cancer risk and non-cancer health risk could be predicted. The HRA was conducted following methods in the Office of Environmental Health Hazard Assessment's (OEHHA) Guidance Manual for Preparation of Health Risk Assessments and CAPCOA's *Air Toxics Hot Spots Program*. The cancer and non-cancer risks were compared to VCAPCD's thresholds, which include:

- Lifetime probability of contracting cancer is greater than 10 in one million
- Ground-level concentrations of non-carcinogenic toxic air pollutants would result in a Hazard Index of greater than 1.

The CalEEMod model provided annual PM2.5 exhaust emissions (assumed to be DPM) from off-road construction equipment used during project construction and exhaust emissions from on-road vehicles (haul trucks, vendor trucks, and worker vehicles) for each phase of project construction. Additionally, the CalEEMod model provided the operational PM2.5 exhaust emissions upon full project buildout. The U.S. Environmental Protection Agency (EPA) AERMOD dispersion model was used to predict concentrations of DPM at sensitive receptors near the Project site in order to calculate the cancer risk consistent with guidance from the Office of Environment Hazard Health Assessment (OEHHA) and the California Air Pollution Control Officers Association (CAPCOA). A full discussion of methodology and calculations are provided in the **Health Risk Assessment Memorandum**, included as **Appendix 3.2-B** and **3.2-C**, respectively, to this Draft EIR.

Review of the Project site demonstrates that the nearest residential receptors are 100 feet east and 200 feet south of the Project site. Due to atmospheric conditions at the site, the highest concentration of pollutants was found to occur at the residence 200 feet south of the site and, as a result, the maximally exposed individual (MEI) residential receptor was evaluated at this site. Additionally, the Walnut Canyon Elementary School and the Chaparral Middle School lie 75 feet southeast and 230 feet south of the site, respectively. Finally, project construction is expected to occur in phases and upon completion of Phase 2, on-site residential receptors may live on-site. As a result, a cancer risk was estimated for a residential receptor living in Planning Area 2 during the remainder of project construction and operation. As demonstrated in **Table 3.2-10, Risk Posed to the Nearest Residential Receptor – Unmitigated**, the health risk posed to the nearest sensitive residential receptor over a thirty-year lifetime beginning at the third trimester of life is approximately 19.52 in one million and, as a result, exceeds the VCAPCD's cancer risk thresholds. Additionally, VCAPCD recommends evaluating the non-cancer health risks from exposure to TACs based on the ratio of TAC generated by a project and the reference exposure level, referred to as a hazard index (HI). As demonstrated in **Table 3.2-10**, the HI would not exceed VCAPCD thresholds.

Table 3.2-10
Risk Posed to the Nearest Residential Receptor – Unmitigated

Receptor	Lifetime Excess Cancer Risk (per million)	Hazard Index
3rd Trimester	0.61	0.011
Infant	14.62	0.012
Child	3.82	0.006
Adult	0.47	0.002
Total 30-Year Cancer Risk	19.52	-
Significance Threshold	10	1.0
Exceed Threshold?	***Yes***	***No***

Source: Impact Sciences, 2020.
*The Hazard Index (HI) was calculated based on the average construction DPM emissions over the duration of each receptor.

Thus the 30-year residential cancer risk posed to the nearest residential receptor 200 feet from the site is approximately 19.52 in one million, see **Appendix 3.2-B, Health Risk Assessment Memorandum.** As a result, the risk posed to the receptor is higher than VCAPCD's cancer risk thresholds. The highest cancer risks will occur during the infantile stages of life, during Phase 1 and Phase 2 of construction. Consistent with VCAPCD recommendations for construction projects that have the potential to emit significant levels of ROG and NOX emissions, the Proposed Project will implement VCAPCD Construction Control

Measures listed in **Section 3.2.6.1** as **CM AQ-1** and **CM AQ-2**. These measures would also reduce DPM emissions during project construction by promoting the use of alternative fueled equipment, minimizing the idling time, and requiring equipment to be in good working order. Regardless, the project would be required to implement mitigation in order to reduce the impacts posed to the nearest residential receptor as a result of project construction. Specifically, the project will implement Construction Mitigation Measure **MM AQ-2**, which will require to developer to use Tier 4 construction equipment throughout the duration of construction. **Table 3.2-11, Risk Posed to the Nearest Residential Receptor – Mitigated** demonstrates that with implementation of mitigation, the cancer risk will be approximately 5.77 in one million and, therefore, will be less than significant.

Table 3.2-11
Risk Posed to the Nearest Residential Receptor – Mitigated

Receptor	Lifetime Excess Cancer Risk (per million)	Hazard Index
3rd Trimester	0.04	0.001
Infant	2.24	0.002
Child	3.02	0.002
Adult	0.47	0.002
Total 30-Year Risk	5.77	-
Significance Threshold	10	1.0
Exceed Threshold?	***No***	***No***

Source: Impact Sciences, 2020.
*The Hazard Index (HI) was calculated based on the average construction DPM emissions, the highest HI would occur during Phase 1 at 0.0128, which is still significantly lower than the threshold.

Thus, the 30-year residential cancer risk posed to the nearest residential receptor 200 feet from the site is approximately 5.77 in one million with implementation of Construction Mitigation Measure **MM AQ-2**, see **Appendix 3.2-B, Health Risk Assessment Memorandum.** Finally, the risks posed to the maximally exposed school child was calculated as the Walnut Canyon Elementary School and Chaparral Middle School lie adjacent to the Project site. The risk posed to the maximally exposed school child, assuming 9 years of exposure, is approximately 0.4 in a million and the risk posed to the on-site residential receptor from project construction and operation is approximately 5.77 in a million assuming that they would live on the site following Phase 2 of construction. Therefore, with mitigation, the risks posed to these receptors would be less than VCAPCD significance thresholds, calculations are provided in the **Health Risk Assessment Memorandum**, included as **Appendix 3.2-B** to this EIR**.**

Impact AQ-4 **Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.**

Less than Significant

For impacts associated with odors, the VCAPCD considers specific land uses primarily associated with odor complaints such as wastewater treatment plants, landfills, composting operations, petroleum operations, food and byproduct processes, factories, and agricultural activities, such as livestock operations. As a residential development, construction and operation of the Project would not result in the development of any of the land uses listed above. Additionally, the Project would comply with VCAPCD regulations regarding odor nuisances.

The Project would not include the development and operation of any of land uses generally associated with odor complaints. Any project generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations which would prevent substantial nuisance odors to be perceived off the Project Site. Therefore, potential odor impacts associated with construction of the Project and/or the Project operation would be less than significant.

3.2.5 CUMULATIVE IMPACTS

As explained above, the analysis of air quality emissions include a cumulative impacts analysis. Accordingly, the analysis above took into account the potential for the Project to contribute to cumulative impacts to air quality. The analysis above illustrates that implementation of the project's regulatory requirements and mitigation measures, including state mandates, would contribute to reductions to air quality impacts.

As stated under **Impact AQ-1**, the Project's projected population would not exceed growth evaluated within SCAG's 2016 RTP/SCS. As such, the emissions generated from the Project have been evaluated within the AQMP. Project construction will result in the emissions of ozone precursors, ROG and NOx, for which the area is in non-attainment. However, these emissions will be short-term in nature and the Project will implement the VCAPCD's recommended construction measures to reduce these emissions.

Furthermore, construction of the Project has the potential to generate particulate matter emissions that has the potential to result in Valley Fever. Project construction will reduce this risk by implementing the VCAPCD's recommended measures, see Construction Mitigation Measure **MM AQ-1**. Additionally, particulate matter emissions will be further reduced through the use of Tier 4 construction equipment throughout the Project site, see Construction Mitigation Measure **MM AQ-2**. Therefore, the cumulative impact from construction criteria air pollutants is less than significant with mitigation. However, project operation has the potential to generate ROC emissions in excess of the VCAPCD's threshold of significance,

and even with implementation of **MM AQ-3**, impacts would remain significant and unavoidable, as detailed in **Section 3.2.7**. Therefore, cumulative operational impacts related to ROC emissions would be significant and unavoidable.

3.2.6 MITIGATION PROGRAM

3.2.6.1 VCAPCD Construction Control Measures

CM AQ-1: The following control measures provided in the *VCAPCD Air Quality Assessment Guidelines* to minimize the generation of fugitive dust (PM10 and PM2.5), ROC, and NO_x during construction activities shall be implemented during construction of the Proposed Project:

- The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.

- Pre-grading/excavation activities shall include watering the areas to be graded or excavated before grading or excavation operations commences. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.

- Fugitive dust produced during grading excavation and construction activities shall be controlled by the following activities:

    - All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization material, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.

    - Graded and/or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally safe dust suppressants to prevent excessive fugitive dust.

- Signs limiting traffic to 15 miles per hour or less shall be posted on site.
- During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off site or on site. The site superintendent/supervisor shall use discretion in conjunction with the VCAPCD in determining when winds are excessive.
- Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day if visible soil material is carried over to adjacent streets and roads.

- Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.

Timing/Implementation: During construction activities

Enforcement/Monitoring: City of Moorpark Community Development and Public Works Departments

CM AQ-2: During construction contractors shall comply with the following measures to reduce NO_x and ROC from heavy equipment as recommended by the VCAPCD in its *Ventura County Air Quality Assessment Guidelines*:

- Minimize equipment idling time.
- Maintain equipment engines in good condition and in proper tune as per manufacturer's specifications.
- Lengthen the construction period during smog season (May through October) to minimize the number of vehicles and equipment operating at the same time.
- Use alternatively fueled construction equipment, such as compressed natural gas (CNG), liquefied natural gas (LNG), or electric, if feasible.

Timing/Implementation: During construction activities

Enforcement/Monitoring: City of Moorpark Community Development Department

3.2.6.2 Construction Mitigation Measures

MM AQ-1: During heavy grading, construction contractors shall comply with the following measures to reduce potential Valley Fever impacts:

- Hire crews from local populations where possible, since it is more likely that they have been previously exposed to the fungus and are therefore immune.
- Require crews to use respirators during project clearing, grading, and excavation operations in accordance with California Division of Occupational Safety and Health regulations.
- Require that the cabs of grading and construction equipment be air-conditioned or enclosed with sufficient ventilation and particulate matter filtration systems.
- Require crews to work upwind from excavation sites where possible.
- Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering.
- During rough grading and construction, the access way into the Project site from adjoining paved roadways should be paved or treated with environmentally safe dust control agents. Implementation of VCAPCD CM-AQ-1 (above), control measures provided in the *VCAPCD Air Quality Assessment Guidelines* will also serve to minimize the generation of fugitive dust (PM10 and PM2.5).

Timing/Implementation: During construction activities

Enforcement/Monitoring: City of Moorpark Community Development and Public Works Departments

MM AQ-2: For the entire duration of construction period, all off-road equipment greater than 25 horsepower shall have engines rated by the United States Environmental Protection Agency as complying with Tier 4 final emission limits. The construction contractors shall provide quarterly summaries of compliance with this measure to the City.

Timing/Implementation: Prior to the issuance of building permits.

Enforcement/Monitoring: City of Moorpark Community Development Department

3.2.6.3 Operational Mitigation Measures

The *VCAPCD Air Quality Assessment Guidelines* recommends that all development projects with significant air quality impacts fully mitigate excess emissions through funding measures for at least three years. Therefore, the following mitigation measure shall be implemented to reduce air quality impacts for the Proposed Project:

MM AQ-3: The Project Applicant shall submit payment of fees to the City of Moorpark's Transportation System Management Fund (Resolution No. 2006-2461). The fees shall be calculated using the procedure outlined in Resolution No. 2006-2461, which relies on the recommendation of the *VCAPCD Air Quality Assessment Guidelines*. As such, the fees shall be based on the unit cost for ROC in effect at the time the fee is to be paid using the Ventura County Air Quality Assessment Guidelines formula of:

(14 lbs excess mobile source ROC emissions) x (unit cost of ROG) x (365 days of operation) x (3 years) = total cost

The unit cost of ROG shall be calculated by adjusting the year 2000 unit cost of $5.18 per pound of ROC reduced with an inflation factor calculated by dividing the most recent January Consumer Price Index (All Urban Consumers [All Items 1982-1984=100]) value for the Los Angeles area by the January 2000 Consumer Price Index value for this region of 167.9.

The City of Moorpark shall spend or commit the mitigation fees to a mitigation project within five years of receipt of the funds. The funds shall be prioritized for mitigation projects within Moorpark, or if not feasible to be located within Moorpark, shall be used for mitigation projects in other locations within Ventura County. The mitigation funds shall not be used for traffic engineering projects, including but not limited to signal synchronization, intersection improvements, or channelization. The City shall provide a report to the City Council annually on the collection, expenditure, and use of these mitigation fees.

Each future entitlement, including but not limited to subdivision maps, planned development permits, and conditional use permits, related to the Proposed Project may be conditioned to pay its proportionate share of the cost to reduce ROC emissions.

Timing/Implementation: Prior to the issuance of first Certificate of Occupancy for each future entitlement, including but not limited to subdivision maps, planned development permits, and conditional use permits, related to the Proposed Project.

Enforcement/Monitoring: City of Moorpark Community Development Department

3.2.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

During construction activities, the developer would implement the VCAPCD-recommended control measures and use Tier 4 construction equipment. Therefore, construction emissions would not cause a significant impact on air quality in the region. Additionally, implementation of VCAPCD Construction Control Measures **CM AQ-1** and **CM AQ-2** and Construction Mitigation Measures **MM AQ-1** and **MM AQ-2** would reduce the cancer health risk posed to nearby residential receptors to a less than significant level.

Following completion of the Proposed Project, the day-to-day activities of the Proposed Project would exceed the VCAPCD threshold of significance for ROC emissions. Implementation of Operational Mitigation Measure **MM AQ-3** would reduce the project's operational mobile source emissions to the extent feasible through payment of offset fees to the City of Moorpark's Transportation System Management Fund, which would be used to implement projects that reduce ROC emissions within VCAPCD jurisdiction (i.e., within Ventura County). However, even if implementation of Operational Mitigation Measure **MM AQ-3** were to reduce the project's operational mobile source emissions to net zero, the project's total operational emissions would still exceed the threshold of 25 pounds per day because the project would still generate operational area source emissions of approximately 27 pounds per day (see **Table 3.2-9**, **Estimated Project Daily Emissions at Buildout**). Operational area source emissions consist of emissions associated with architectural coatings (e.g., interior and exterior paints), consumer products (e.g., household cleaning products, adhesives, sealants, caulking, waxes, polishes, paint removers, degreasers, herbicides, insecticides); and landscaping equipment. Feasible mitigation measures are not available to reduce operational area source emissions for several reasons. With regard to architectural coatings, the current ROC content limits for architectural coatings contained in VCAPCD Rule 74.2 are consistent with the SCAQMD Rule 1113 ROC content limits, which the VCAPCD determined are the best available control technology (i.e., the most effective emission control device, emission limit, or technique that has been required or used for this type of emission source).[24] With regard to consumer products and landscaping equipment, the City does not have the authority to regulate future residents' use of certain types of

[24] VCAPCD. 2020. "Appendix B – Staff Report – Proposed Amendments to Rule 74.2, Architectural Coatings." August 2020. http://www.vcapcd.org/pubs/Rules/742/2020/Rule-74-2-Staff-Report-Rule-August-2020-2.pdf, accessed December 3, 2021.

consumer products or landscaping equipment through the Specific Plan. Therefore, no feasible mitigation measures are available to reduce the project's total operational ROC emissions below the VCAPCD significance threshold of 25 pounds per day. As a result, operational air quality impacts would be significant and unavoidable.

The following discussion addresses the potential human health impacts associated with significant and unavoidable emissions of ROC, which is a precursor to the criteria air pollutant of ozone. This discussion is provided to address concerns raised in the Sierra Club v. County of Fresno (Friant Ranch; 2018) decision regarding adequate disclosure of the potential human health effects from significant air quality impacts. The Supreme Court opinion in Friant Ranch requires projects with significant air quality impacts to "relate the expected adverse air quality impacts to likely health consequences or explain why it is not feasible at the time of drafting to provide such an analysis, so that the public may make informed decisions regarding the costs and benefits of the project."

In their amicus briefs on the Friant Ranch case, SCAQMD and San Joaquin Valley Air Pollution Control District (SJVAPCD) staff state that it is not feasible with existing modeling techniques to precisely correlate a project's impacts related to ROC, NO_x, and particulate matter emissions to quantifiable health impacts, unless the emissions are sufficiently high to use a regional modeling program, which is not the case for the proposed project (Brief for South Coast Air Quality Management District 2018; Brief for San Joaquin Valley Unified Air Pollution Control District 2018).[25] In addition, the SCAQMD and SJVAPCD amicus briefs note that ozone formation is not linearly related to ROC and NO_x emissions. Therefore, ozone impacts vary depending on the location of the emissions, the location of other precursor emissions, meteorology, and seasonal impacts and because ozone is formed later and downwind from the actual precursor emissions. Therefore, a general description of the adverse health impacts resulting from the project's ROC emissions is the full extent of information that can be provided at this time.

The increase in ROC emissions and corresponding increase in ozone concentrations in Moorpark, and more broadly in Ventura County, as a result of project operation would contribute to adverse health impacts that are already occurring due to the region's nonattainment status for this pollutant. As summarized in **Table 3.2-2, Criteria Pollutants Summary of Common Sources and Effects,** in **Section 3.2.1.2**, the health impacts of ozone include irritation and inflammation of mucous membranes and lung airways; wheezing,

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25 Brief for South Coast Air Quality Management District as Amicus Curiae Supporting Respondents, Sierra Club, Revive the San Joaquin, and League of Women Voters Fresno v. County of Fresno and Friant Ranch, L.P. (2018), 6 Cal.5th 502, Case No. S219783.

Brief for San Joaquin Valley Unified Air Pollution Control District as Amicus Curiae Supporting Respondents, Sierra Club, Revive the San Joaquin, and League of Women Voters Fresno v. County of Fresno and Friant Ranch, L.P. (2018), 6 Cal.5th 502, Case No. S219783.

coughing, and pain when inhaling deeply; decreased lung capacity; and aggravation of lung and heart problems.

3.3 BIOLOGICAL RESOURCES

INTRODUCTION

This section discusses the biological resources occurring on the approximately 277.30-acre Project site, evaluates the significance of potential impacts to these resources based on thresholds defined in the California Environmental Quality Act (CEQA) and the State CEQA Guidelines*, and includes measures to mitigate potentially significant impacts.*

State and federal regulatory agencies that have jurisdiction over biological resources in the project area include the California Department of Fish and Wildlife (CDFW), US Fish and Wildlife Service (USFWS), US Army Corps of Engineers (USACE), and the California Regional Water Quality Control Board (RWQCB). This section addresses potential impacts to biological resources that are governed by these agencies' laws and regulations.

3.3.1. REGULATORY FRAMEWORK

3.3.1.1 Federal Laws and Regulations

Federal Endangered Species Act

Under the federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as Threatened or Endangered (16 United States Code [USC] 1533[c]). Pursuant to the requirements of the FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed or proposed species may be present in the project region, and whether the proposed project would result in a "take" of such species. The "take" provision of the FESA applies to actions that would result in injury, death, or harassment of a single member of a species protected under the Act. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under the FESA or result in the destruction or adverse modification of critical habitat for such species (16 USC 1536[3][4]). If it is determined that a project may result in the "take" of a federally listed species, a permit from the U.S. Fish and Wildlife Service (USFWS) would be required under Section 7 or Section 10 of the FESA. Section 7 applies if there is a federal nexus (e.g., the project is on federal land, the lead agency is a federal entity, a permit is required from a federal agency, or federal funds are being used). Section 10 applies if there is no federal nexus.

Clean Water Act

The Federal Water Pollution Control Act of 1972, often referred to as the Clean Water Act, is the nation's primary law for regulating discharges of pollutants into waters of the United States. The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The regulations adopted pursuant to the Act deal extensively with the permitting of actions in waters of the United States, including wetlands. The U.S. Environmental Protection Agency (US EPA) has primary authority under the Clean Water Act to set standards for water quality and for effluents, but the USACE has primary responsibility for permitting the discharge of dredge or fill materials into streams, rivers, wetlands, and other waters of the United States.

On April 21, 2020, the US EPA and USACE published a final rule (Navigable Waters Protection Rule) in the Federal Register redefining the term "waters of the United States" ("WOTUS") under the Clean Water Act. The final rule replaced both the 2015 Rule and the 2019 Rule by redefining the definition of WOTUS. However, this rule was officially vacated in September 2021 by the USACE and EPA. The agencies have halted implementation of the Navigable Waters Protection Rule and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice.

The pre-2015 regulations and guidance include the following categories of WOTUS:

- The territorial seas and traditional navigable waters (TNWs);
- tributaries of such waters;
- certain lakes, ponds, and impoundments of jurisdictional waters;
- wetlands adjacent to other jurisdictional waters (other than waters that are themselves wetlands)
- Intermittent tributaries AND ephemeral features that possess a significant nexus to TNWs

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (16 USC, Section 703, Supplement I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. The Migratory Bird Treaty Act (MBTA) encompasses whole birds, parts of birds, and bird nests and eggs. With a few exceptions, most birds are considered migratory under the MBTA. Disturbances that causes nest abandonment and/or loss of reproductive effort or loss of habitat upon which these birds depend could be in violation of the MBTA. A December 2017 opinion from the Office of the Solicitor for the U.S. Department of the Interior (M-opinion) concluded the MBTA restrictions apply only to affirmative

and purposeful actions, such as hunting and poaching that reduce migratory birds and their nests and eggs, by killing or capturing, to human control and not incidental taking. April 2018 guidance from the Principal Deputy Director of the USFWS provides further guidance on revisions to past policies and guidance regarding the MBTA. This guidance concludes the MBTA's prohibitions on take of migratory birds apply only when the purpose of the action is to take migratory birds, their eggs, or their nests. The USFWS issued a new Director's Order on October 5, 2021. As of December 3, 2021, the USFWS will go back to interpreting the MBTA as prohibiting the incidental take of migratory birds and will enforce the statute accordingly.

3.3.1.2 State Laws and Regulations

California Endangered Species Act

Under the California Endangered Species Act (CESA), the CDFW has the responsibility for maintaining a list of Threatened and Endangered species (California Fish and Game Code Section 2070). The CDFW also maintains a list of "candidate species," which are species formally under review for addition to either the list of Endangered species or the list of Threatened species. In addition, the CDFW maintains lists of "species of special concern," which serve as watch lists. Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed Endangered or Threatened species could be present on the Project site and determine whether the proposed project could have a potentially significant impact on such species.

California Native Plant Protection Act

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (NPPA), which directed the CDFW to carry out the legislature's intent to "preserve, protect, and enhance Endangered plants in this state." The NPPA gave the California Fish and Wildlife Commission the power to designate native plants as Endangered or Rare and to require permits for collecting, transporting, or selling such plants. The CESA expanded upon the original NPPA and enhanced legal protection for plants. There are three listing categories for plants in California: Rare, Threatened, and Endangered.

California Fish and Game Code

The California Fish and Game Code provides a variety of protections for riparian resources and species that are not federally or state-listed as Threatened, Endangered, or of special concern.

- Section 1600 requires a Streambed Alteration Agreement for any activity that may alter the bed and/or bank of a stream, river, or channel. Typical activities that require a Streambed Alteration Agreement include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water,

installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement.

- Sections 2081(b) and (c) allow CDFW to issue an incidental take permit for a State listed threatened and endangered species only if specific criteria are met. These criteria can be found in 14 C.C.R. § 783.4(a) and (b). No Section 2081(b) permit may authorize the taking of "fully protected" species and "specified birds." If a project is planned in an area where a fully protected species or specified bird occurs, an applicant must design the project to avoid all takings; the CDFW cannot authorize takings under these circumstances.

- Section 3503 protects all breeding native bird species in California by prohibiting the take,[1] possession, or needless destruction of nests and eggs of any bird, with the exception of non-native English sparrows and European starlings (Section 3801).

- Section 3503.5 protects all birds of prey (in the orders Falconiformes and Strigiformes) by prohibiting the take, possession, or killing of raptors and owls, their nests, and their eggs.

- Section 3513 of the code prohibits the take or possession of migratory nongame birds as designated in the MBTA or any parts of such birds except in accordance with regulations prescribed by the Secretary of the Interior.

- Section 3800 of the code prohibits the taking of nongame birds, which are defined as birds occurring naturally in California that are not game birds or fully protected species.

- Section 3511 (birds), Section 5050 (reptiles and amphibians), and Section 4700 (mammals) designate certain wildlife species as fully protected in California.

- *CEQA and CEQA Guidelines.* The CEQA Guidelines provide a framework for the analysis of impacts to biological resources. The administering agency is the CEQA Lead Agency, which is in this case the City of Moorpark.

- *Native Plant Protection Act of 1977*. The Native Plant Protection Act of 1977 and implementing regulations in Fish and Game Code §§ 1900, et seq. designates rare and endangered plants and provides specific protection measures for identified populations. It is administered by the CDFW.

1 "Take" in this context is defined in Section 86 of the California Fish and Game Code as to "hunt, pursue, catch, capture, or kill, or to attempt to hunt, pursue, catch, capture, or kill."

- *Public Resources Code Sections 25500 & 25527*. These code sections prohibit the siting of development in certain areas of critical concern for biological resources, such as ecological preserves, wildlife refuges, estuaries, and unique or irreplaceable wildlife habitats of scientific or educational value. If there is no alternative, strict criteria are applied under the authority of the CDFW.

California Regional Water Quality Control Board

Wetlands and permanent and intermittent drainages, creeks, and streams that fall under the jurisdiction of the USACE are also regulated by the California Regional Water Quality Control Board (RWQCB), as defined by Section 401 of the Clean Water Act, which authorizes the State of California to certify that federal permits and licenses do not violate the state's water quality standards. The state's implementing regulations to conduct certifications are codified under the California Code of Regulations, Title 23 Waters, Sections 3830 through 3869. In addition, waters into which discharge may occur are regulated by the RWQCB, pursuant to the California Porter-Cologne Water Quality Act. This includes surface waters (such as wetlands), groundwater, and point and non-point sources of pollution.

3.3.1.3 Local Regulations

City of Moorpark General Plan

The goals and policies of the *City of Moorpark General Plan* that are applicable to the proposed Hitch Ranch Specific Plan project are listed below.

Land Use Element

Goal 15: Maintain a high-quality environment that contributes to and enhances the quality of life and protects public health, safety, and welfare.

Policy 15.1: Public and private projects shall be designed so that significant vegetation shall be maintained and protected, including riparian and oak woodland vegetation and mature trees (as defined in the City Code).

Policy 15.2: Ecologically sensitive habitats shall be protected and preserved or replaced with no net loss of habitat so long as there is substantial public benefit to any relocation program.

Policy 15.3: Natural and cultural resources having significant educational, scientific, scenic, recreational or social value shall be protected and preserved.

Policy 15.5: The City shall require developers to maintain wildlife corridors to allow for the passage of animals between designated open space or recreational areas.

Open Space, Conservation and Recreation Element

Goal 4: Preserve and maintain the physical and biological environment from future growth-related degradation. In those areas where degradation is inevitable, ensure the restoration of affected areas.

Policy 4.3: Conserve, preserve, and enhance the quality of biological and physical environments throughout the City of Moorpark. Require restoration of those areas unsatisfactorily maintained or subsequently degraded.

3.3.2 METHODOLOGY

3.3.2.1 Literature Review

Impact Sciences conducted a review of relevant environmental documents to gain an understanding of those biological resources documented on, or in the vicinity of, the project location, with emphasis on special-status biological resources. In order to identify special-status plant and animal species (those species considered rare, threatened, endangered, or otherwise sensitive by various state and federal resource agencies) recorded in the vicinity of the Project site, the California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) electronic database were reviewed for the Moorpark U.S. Geological Survey (USGS) 7.5-minute quadrangle, in which the Project site is located, as well as the eight surrounding quadrangles: Thousand Oaks, Newbury Park, Santa Paula, Santa Paula Peak, Camarillo, Simi, Piru, and Fillmore. The 2018 CDFW Special Animals List and the CNPS online Inventory of Rare and Endangered Plants - 7th Edition Interface v7 3-19-18 CDFW were also reviewed to determine the current status of sensitive plant and animal species potentially occurring on the Project site. Refer to **Appendices 3.3-B** and **3.3-J**.

3.3.2.2 Tree Surveys, Vegetation Mapping, and Focused Plant Surveys

Tree Surveys

Mike Starr of Nature Buffs conducted a survey in 1995 of all trees on the site that had trunks of at least 4 inches in diameter (72 square inches cross sectional area) at 4.5 feet above grade (also referred to as diameter at breast height, or DBH). The trees meeting this criterion were tagged and mapped in the field.

Subsequent field surveys of the Project site were conducted on July 11 and 12, 2001, by Impact Sciences biologists to update the 1995 tree survey. All trees with a DBH of 4-inches or more were measured. On July 25 to 27, 2011 Rincon Consultants, Inc. (Rincon) conducted a new tree inventory of the Hitch Ranch Project site in accordance with the requirements set forth by the City of Moorpark. Data were collected for all mature trees within the project area boundary. Tree presence and health were re-assessed during 2018 and 2019 biological survey updates. In July 2020, a tree survey was performed by a certified arborist with the L. Newman Design Group (LNDG). Refer to **Appendix 3.3-G**.

Vegetation Mapping

Impact Sciences initially conducted a general biological survey on the site on September 12, 1993. The plant communities on the site were mapped, characterized, and analyzed for their potential to support special-status species. Since a wildfire occurred on the Project site in 2003, Impact Sciences characterized and mapped the plant communities again on September 28, 2006, to update and evaluate the current condition of habitats on the Project site and to assist in determining the potential of each habitat to support special-status species. Shortly after the plant communities were characterized in 2006, another fire burned the entire property, and an additional site visit was made in January 2007 to assess the effects of the fire on trees and plant communities on site. Plant communities were characterized and mapped again in June 2021 by Rincon. Plant communities were mapped with the aid of a color aerial photograph of the site and field verified by a qualified biologist (1 inch = 500 feet). The communities were digitized and the total area of each plant community on site was calculated using ArcGIS. As appropriate, on-site plant community descriptions used in this document are based on the current list of vegetation types, available from the CDFW Vegetation Classification and Mapping Program (VCMP).[2] A **Vegetation Map** for the project area was produced in 2011 and reconfirmed by site visits in 2019, 2020, and 2021 (see **Figure 3.3-2)**.

Focused Plant Surveys

Focused plant surveys were conducted on April 21, 22, and 29, and May 15, 1998, and again in May and June of 2000 to update the plant information obtained during the initial 1993 surveys. Focused plant surveys were conducted by Impact Sciences in the spring of 2006 and on March 26, April 20, and May 13, 2016. These surveys followed protocol defined by the CNPS and CDFW to search for rare plant occurrences. All areas of the Hitch Ranch property were walked, and a comprehensive list of all native plants observed was compiled (planted and non-native ornamental plants were excluded). The taxonomic reference for all species was the current Jepson Manual. Special attention was afforded to those portions of the site

2 California Department of Fish and Game, Biogeographic Data Branch. 2020. *Vegetation Classification and Mapping Program List of California Vegetation Alliances*, September 9, 2020.

potentially supporting sensitive flora or fauna. A rare plant report was prepared dated July 2016 (**Appendix 3.3-F**).

3.3.2.3 General Wildlife Surveys and Protocol Animal Surveys

General wildlife surveys were conducted concurrent with the vegetation mapping, tree surveys, and focused plant and animal surveys, beginning in 1993, with other surveys conducted in 1995, and 2001. All animals and sign of presence (scat, footprints, burrows, trails, *etc.*) observed were noted during all visits to the site.

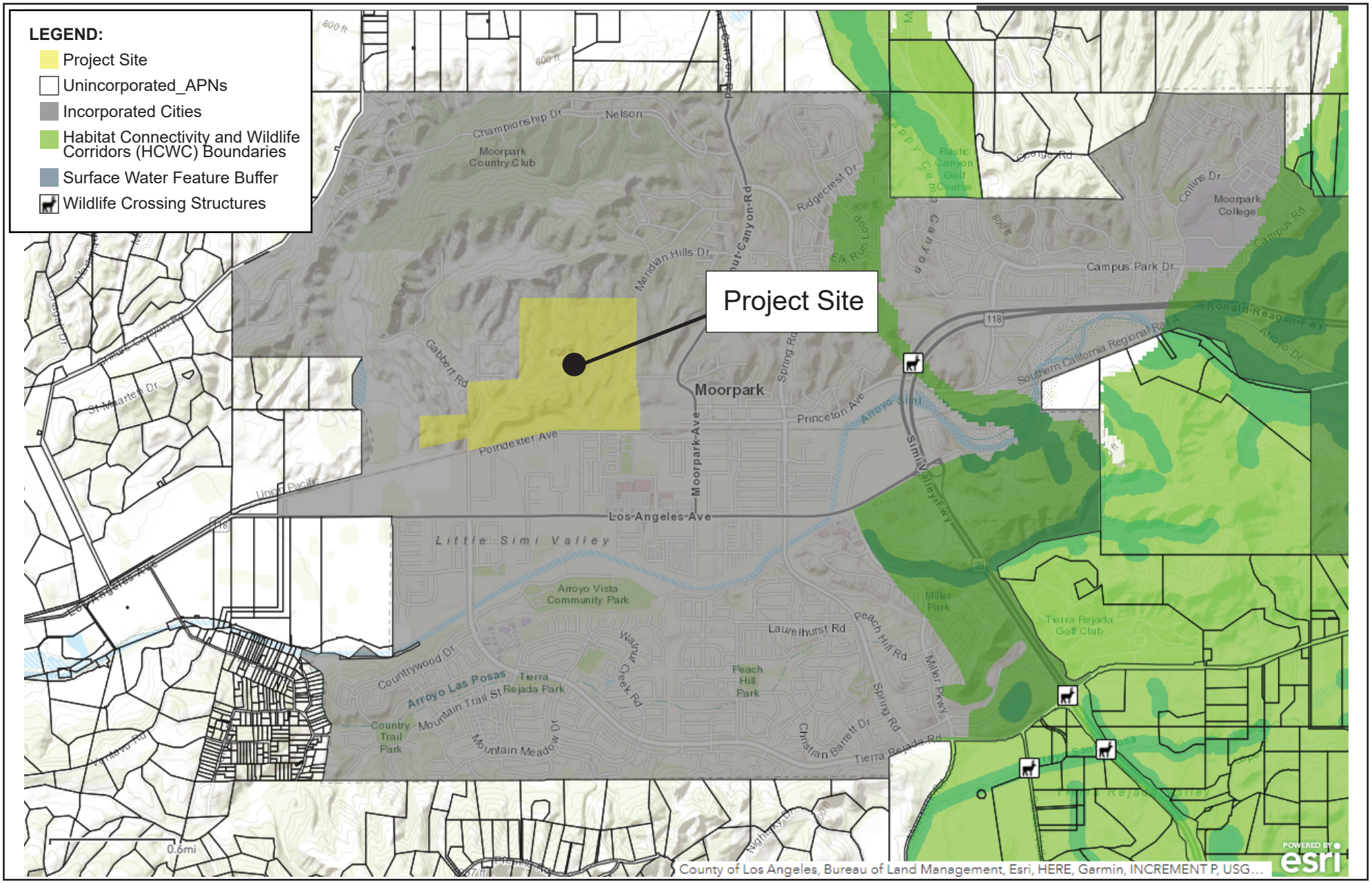
On May 15, 2009, June 29, 2011, April 3, 2018, and April 12, 2019, biologists conducted additional field visits to confirm whether conditions had remained the same on the site or had changed since the preparation of the previous reports, and to further update the conclusions regarding the potential of special-status species to utilize the site.

Protocol surveys for coastal California gnatcatcher (CAGN, *Polioptila californica californica*), a bird species federally listed as threatened, were performed in 1998, 2000, 2003, 2005, 2009, 2011, 2016, and 2021. All surveys were conducted in accordance with USFWS survey protocols, which require that six surveys be conducted at least one week apart from March 15 through June 30, or a minimum of nine surveys at least two weeks apart be conducted July 1 through March 14. Refer to **Appendices 3.3-C**, **3.3-D**, and **3.3-E**.

All surveys were conducted between the hours of 6:00 AM and 12:00 PM Surveys were conducted on approximately 25 acres in 2005 and approximately 20 acres of potentially suitable scrub habitat and a surrounding buffer zone in 2009, 2011, and 2016. In 2021, California gnatcatcher surveys were conducted throughout the entire 277.30-acre Project site. Potential habitat areas were systematically surveyed on foot by walking methodically along transect routes. To ensure complete coverage, the general location of transects and survey points along each transect were based on the vegetation and topographic conditions (size, location, and shape of habitat). A combination of taped vocalizations and "pishing" sounds were used at each calling point, to encourage bird and wildlife movement for sightings. Refer to **Appendices 3.3-C**, **3.3-D**, and **3.3-E**.

3.3.2.4 Wildlife Movement

Analysis of potential wildlife movement corridors associated with the project area was based on information compiled from a review of pertinent literature, results of field surveys, and analysis of aerial photographs and topographic maps of the area. **Figure 3.3-1, Habitat Connectivity and Wildlife Corridor Overlay Zone Map,** shows important migration corridors identified by the South Coast Missing Linkages Project, a joint effort of South Coast Wildlands, the County of Ventura, and the National Park Service.



SOURCE: County of Ventura, Resource Management Agency, December 2021.

FIGURE **3.3-1**

Habitat Connectivity and Wildlife Corridors Map

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3.3.2 ENVIRONMENTAL CONDITIONS

3.3.2.1 General Site Characteristics

The Project site is situated within the Transverse Ranges at the southern limit of the Simi Hills, between the Oak Ridge Mountains to the north and the Las Posas Hills to the south. Various densities of development surround the site, with residential development currently under construction to the north, the railroad, Poindexter Avenue, and light industrial and residential development to the south, rural residential and Walnut Canyon School to the east, and rural residential and a Southern California Edison transmission corridor to the west. The site is characterized by gently rolling hills and a series of north-south trending ridges and canyons. The topography ranges from moderately steep to relatively flat, and is highly variable; elevation at the site ranges from approximately 475 to 720 feet above mean sea level. The site has been previously disturbed by agricultural operations and several fires in recent years. Numerous dirt roads, concrete foundations of old farm buildings, and culverts in old agricultural ditches are still present as well as a livestock shed and goats in a fenced pen. The Project site historically was used for commercial grazing operations, and apricot production in the 1950s and infrequent limited dry farming since then. More recent farming ventures failed commercially, and no crop farming has occurred on site for more than a decade. Remnants of the former apricot farming operations burned down in 2003. Limited grazing operations still occur on site. The majority of vegetation consists of annual, non-native brome grassland (including that mixed with non-native forbs and coyote brush scrub), with scattered California sagebrush-deerweed, coyote brush scrub, mulefat thicket, and non-native woodland communities. In 2003 and 2006, fires entirely burned these plant communities, but they have since grown back in similar proportions, because these communities are comprised of species largely adapted to periodic fires. Several ephemeral drainages convey storm water down the steep slopes of the site, but no defined beds and banks or well-developed riparian plant communities were observed. Some evidence of erosion was noted in 2018 and 2019 at areas previously disturbed, such as where pipelines were installed and along Gabbert Road.

Soils

The Soil Conservation Service's (SCS) Ventura Area Soil Survey was reviewed to determine soil types on the Project site. The majority of the site is included within the Rincon-Huerhuero-Azule Association, which is a very deep, well to moderately well-drained soil that is located on level to moderately steep slopes. It consists of very fine sandy loams to silty clay loams that have a slowly to very slowly permeable sandy clay subsoil. The Mocho-Sorrento-Garretson Association occurs in the southern portion of the site. This association is typically found in alluvial fans, plains, and basins, and is a very deep soil that consists of well-drained loams to silty clay loams.

Within these two soil associations, six soil series occur on the Project site and include the Chesterson series (Chesterson sandy loam, 9 to 30 percent slopes, severely eroded and the Chesterson coarse sandy loam, 5 to 15 percent slopes, eroded), the Garretson series (Garretson loam, 2 to 9 percent slopes), the Metz series (Metz loamy sand, 2 to 9 percent slopes), the Mocho series (Mocho loam, 0 to 2 percent slopes), the San Andreas Series (San Andreas sandy loam, 30 to 50 percent slopes), and the Soper Series (Soper gravelly loam, 30 to 50 percent slopes, eroded).

Vegetation

The CDFW Biogeographic Data Branch, Vegetation Classification and Mapping Program (VCMP), has developed a List of California Vegetation Alliances. The most recent version of this list, dated September 2010 provides the currently accepted list of vegetation type Alliances. It is based on the classification put forth in the second edition of *A Manual of California Vegetation*[3] which is the California expression of the National Vegetation Classification.[4]

Vegetation within the Project site was identified, characterized, and mapped (using geographic information system [GIS] technology) (**Figure 3.3-2, Vegetation Map**). Vegetation nomenclature used to describe plant communities is based on the current list of vegetation types, available from the CDFW VCMP.[5] Common plant names of plant taxa are taken from various informal sources.

The majority of the site is disturbed by active cattle grazing and covered in non-native brome grasslands, specifically to the east of Gabbert Road. Native plant communities present on site are substantially disturbed by grazing and include California sagebrush-deerweed scrub, California sagebrush scrub, cactus scrub, blue elderberry stands, and chaparral yucca scrub. Also present are disturbed areas that are actively disced for required fire clearance, developed areas, and non-native woodland. **Table 3.3-1, Vegetation Types and Acreages**, and the following discussion provide a description of the botanical characteristics of each of the plant communities found on the Project site. Because one of the primary purposes of the VCMP is to assist in the location and determination of significance and rarity of vegetation types for tracking purposes in the CNDDB, sensitivity rankings are also given following the headings of each vegetation type in the discussion paragraphs to follow. These rankings incorporate "Global" and "State" rankings, 1

3 Sawyer, JO, Keeler-Wolf, T. and Evens, JM. 2008. *A Manual of California Vegetation, second edition.* California Native Plant Society, Sacramento.

4 Grossman, DH, K Goodin, M Anderson, P Bourgeron, MT Bryer, R Crawford, L Engelking, D Faber-Langendoen, M Gallyoun, S Landaal, K Metzler, KD Patterson, M Pyne, M Reid, L Sneddon, and AS Weakley. 1998. *International classification of ecological communities: Terrestrial vegetation of the United States.* The Nature Conservancy. Arlington, Virginia.

5 California Department of Fish and Game, Biogeographic Data Branch. 2009. *Vegetation Classification and Mapping Program List of California Vegetation Alliances*, December 28, 2009.

through 5, using NatureServe's standard heritage program methodology.6 Alliances given a G1 through a G3 code are considered sensitive. Alliances given a G4 or G5 code are generally considered common enough to not be of concern.

Table 3.3-1
Vegetation Types and Acreages

Vegetation type	Acres*	% of Site
Annual brome grassland	1.35.	0.47
Annual brome grasslands (Disturbed/Grazed)	152.45	53.54
Total annual brome grassland	**153.79**	**54.01**
Non-native woodland	**10.65**	**3.73**
Blue Elderberry Stands	1.62	0.56
Blue Elderberry Stands (Disturbed/Grazed)	5.38	1.88
Total blue elderberry stands	**7.00**	**2.46**
California sagebrush-deerweed scrub	23.85	9.20
California sagebrush-deerweed scrub (Disturbed/Grazed)	12.92	4.53
Total California sagebrush-deerweed scrub	**39.13**	**13.74**
Cactus Scrub (Disturbed/Grazed)	**1.76**	**0.62**
Chaparral yucca scrub (Disturbed/Grazed)	**0.43**	**0.15**
Developed	**1.44**	**0.51**
Disturbed/Disced	**70.53**	**24.78**
TOTAL	**284.73**	**100.00**

* Acreages include the 277.3-acre Project site and off-site improvement areas associated with the development (e.g., roadway connections) as depicted in **Figure 3.3-2**.

Source: Rincon Consultants, Inc., July 2021

Annual Brome Grassland (unranked)

Annual brome grassland covers 153.79 acres of the site. Many of the areas dominated by annual brome grasslands were previously disturbed by agricultural activities (*e.g.*, row crops and orchards), cattle grazing, and placement of irrigation lines, dirt roads, and yard clipping piles, which consists of 152.45 acres of this community within the Project site. The majority of the vegetation consists of dense non-native annual grasses, including slender oat (*Avena barbata*), wild oat (*A. fatua*), ripgut brome (*Bromus diandrus*), soft chess

6 NatureServe. 2019. NatureServe Conservation Status descriptions. Available at http://www.natureserve.org /conservation-tools/conservation-status-assessment, accessed June 4, 2019

(*B. hordeaceus*), red brome (*B. madritensis* ssp. *rubens*), hare barley (*Hordeum murinum* ssp. *leporinum*), Italian rye (*Lolium multiflorum*), perennial rye (*L. perenne*), and mouse-tail fescue (*Vulpia myuros* var. *myuros*).

Other prevalent non-native herbs include fennel (*Foeniculum vulgare*), Italian thistle (*Carduus pycnocephalus*), tocolote (*Centaurea melitensis*), prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*), summer mustard (*Hirschfeldia incana*), wild radish (*Raphanus sativus*), coast prickly-pear (*Opuntia littoralis*), burclover (*Medicago polymorpha*), yellow sweet-clover (*Melilotus indicus*), hairy vetch (*Vicia villosa*), red-stem filaree (*Erodium cicutarium*), horehound (*Marrubium vulgare*), scented gaura (*Gaura drummondii*), sand plantain (*Plantago arenaria*), and Torrey's nightshade (*Solanum dimidiatum*).

Common native herbs include narrow-leaf milkweed (*Asclepias fascicularis*), scapellote (*Acourtia microcephala*), western ragweed (*Ambrosia psilostachya*), tarragon (*Artemisia dracunculus*), horseweed (*Conyza canadensis*), clustered tarplant (*Deinandra fasciculata*), telegraph weed (*Heterotheca grandiflora*), small wirelettuce (*Stephanomeria exigua*), twiggy wreathplant (*Stephanomeria virgata*), Menzies' fiddleneck (*Amsinckia menziesii*), branching phacelia (*Phacelia ramosissima* var. *latifolia*), coastal chaparral morning-glory (*Calystegia macrostegia* ssp. *cyclostegia*), turkey mullein (*Croton setigerus*), miniature lupine (*Lupinus bicolor*), arroyo lupine (*L. succulentus*), vinegar weed (*Trichostema lanceolatum*), dense-flowered owl's-clover (*Castilleja densiflora*), and jimsonweed (*Datura wrightii*).

California sagebrush (*Artemisia californica*) is scattered along the slopes within low-lying grasslands that have not been recently disked, mowed or grazed; other emergent species include blue elderberry (*Sambucus nigra* ssp. *caerulea*), Coyote brush (*Baccharis pilularis*), Peruvian-pepper (*Schinus molle*), coast prickly-pear cactus (*Opuntia littoralis*), calabazilla (*Cucurbita foetidissima*), castor-bean (*Ricinus communis*), deerweed (*Acmispon glaber* var. *glaber*), and blue gum (*Eucalyptus globulus*).

Blue Elderberry Stands (unranked)

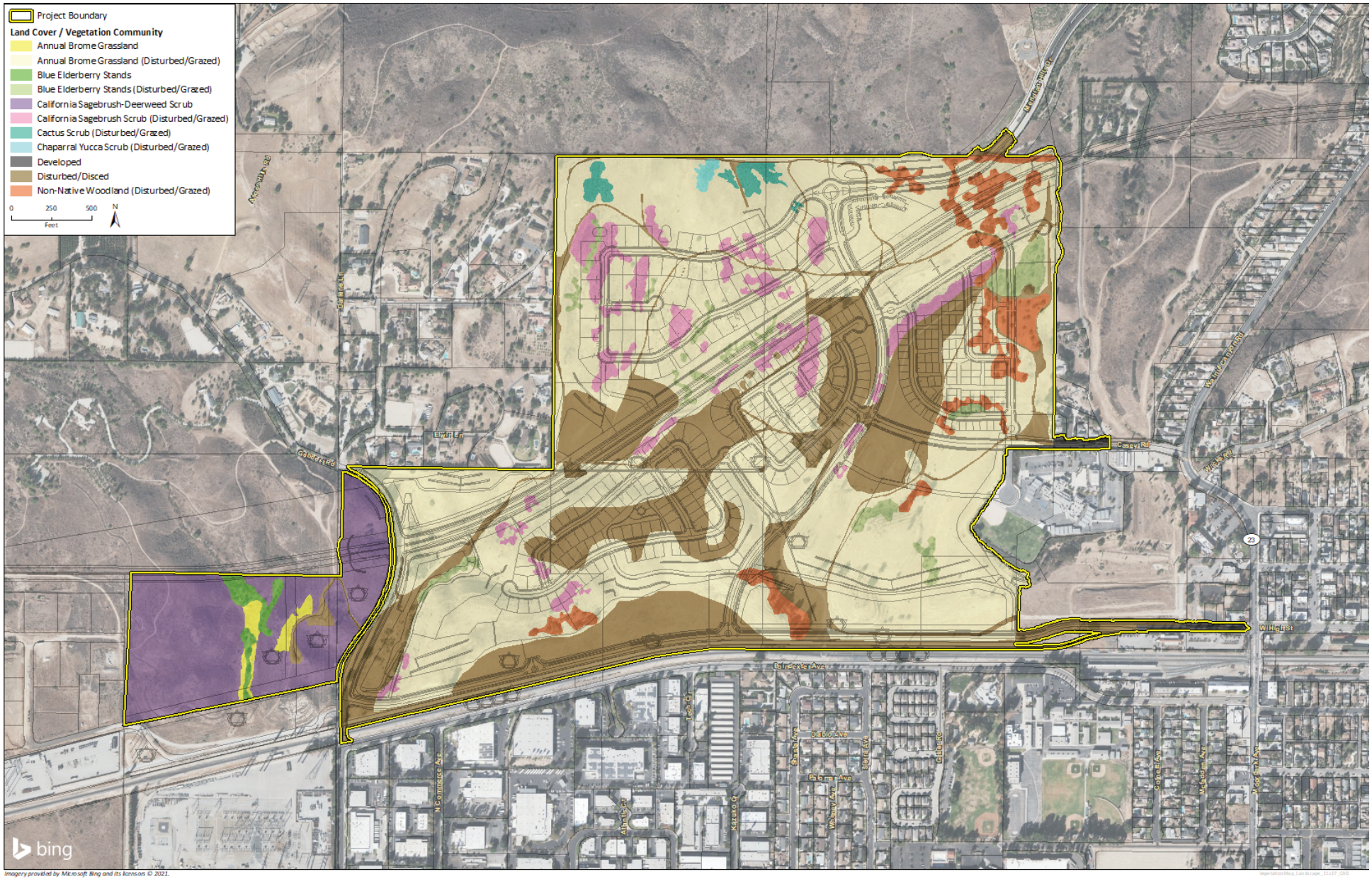
Blue elderberry stands are present to the west of Gabbert Road that covers 1.62 acre. Dominated by blue elderberry, other species present within this community include mulefat (*Baccharis salicifolia*), castor-bean, and non-native tree tobacco (*Nicotiana glauca*), with an understory dominated by annual non-native grassland species such as brome grasses, mustards, wild oats, and horehound, along with a few natives such as fireweed (*Chamerion angustifolium*), and tarragon. In addition, there are 5.38 acres of scattered blue elderberry stands on the Project site to the east of Gabbert Road; however, these stands are highly disturbed by cattle grazing and include an understory dominated by annual brome grassland species. Collectively, this community covers 7.00 acres of the entire Project site.

Non-native Woodland (unranked)

The term "non-native woodland," as used in this document is a collective term referring to eucalyptus groves and pepper tree or *Myoporum* groves. Several patches throughout the northeastern and central portions of the site are comprised of non-native woodland, totaling 10.65 acres. The non-native woodland is composed of non-native tree species that were planted or have spread and naturalized on the Project site. Blue gum eucalyptus have been planted along roads in the eastern portions of the Project site, presumably as wind breaks. Scattered clumps of African sumac (*Rhus lancea*) and Peruvian-pepper trees occur throughout the site. Many of the peppers and eucalyptus have regenerated after fires.

California Sagebrush-Deerweed Scrub (G5 S5)

Remnant patches of the California sagebrush-deerweed community, which together total 39.13 acres, occur in the western portion of the Project site. There is 26.21 acres of this community to the west of Gabbert Road that is relatively undisturbed; whereas 12.92 acres of this community located to the east of Gabbert Road is substantially disturbed by ongoing cattle grazing and other disturbances that have occurred (e.g., fires and agriculture). The vegetation within this community on the east-side of Gabbert Road is sparce and generally stunted from ongoing cattle grazing and drought conditions that have persisted since 2019. These disturbances have limited regeneration and natural recruitment from occurring. The overstory of the California sagebrush-deerweed community is dominated by California sagebrush (*Artemisia californica*) and deerweed (*Acmispon glaber*), which forms a nearly uniform stand within the plant community. Occasional individuals of coyote brush, sawtooth goldenbush (*Hazardia squarrosa*), coast prickly-pear, and giant wildrye (E*lymus condensatus*) occur within this community, along with a few blue elderberry, Peruvian-pepper, and chaparral yucca (Hespero*yucca whipplei*). The understory is composed of non-native grasses. However, one area in the far western portion of the site (west of Gabbert Road) is vegetated with an understory of native purple needlegrass (*Stipa pulchra*), along with other native herbs such as California everlasting (*Pseudognaphalium californicum*), miniature lupine, rancheria clover (*Trifolium albopurpureum* var. *albopurpureum*), and dense-flowered owl's-clover. Non-native filaree, hairy vetch, and fennel also occupy this area.



SOURCE: Bing, 2021.

FIGURE **3.3-2**

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Vegetation Map

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Cactus Scrub (G3/S3)

On-site cactus scrub series is dominated by native coast prickly pear. This community is extensive in the undisturbed open space to the north, and remnant patches are present along the northern perimeter of the Project site, which totals 1.76 acres. Occasional California sagebrush shrubs, saw-toothed goldenbush, and California-aster (*Corethrogyne filaginifolia*) occur within this community. Understory vegetation is dominated by species present in the surrounding annual brome grasslands. During the 2021 vegetation mapping and coastal California gnatcatcher survey, it was noted that cattle were grazing on this community and elsewhere on the ranch, leaving grasses and forbs to dominate.

Chaparral Yucca Scrub (G3G4/S3S4)

On-site chaparral yucca scrub series is dominated by native chaparral yucca. This community is interspersed within the undisturbed open space to the north of the Project site, and a remnant patch is present along the northern perimeter of the project that totals 0.43 acre. The vegetation within this community is stunted from ongoing cattle grazing and drought conditions that have persisted since 2019. These disturbances have limited regeneration and natural recruitment from occurring. Occasional California sagebrush shrubs, coast prickly pear, and saw-toothed goldenbush occur within this community. Understory vegetation is dominated by species present in the surrounding annual brome grasslands.

Non-vegetated Areas (unranked)

Non-vegetated areas of the Project site predominantly consist of developed and disturbed/disced areas. Developed areas generally include existing roads and disturbed/disced areas include concrete foundations of previous farm buildings, areas actively disced for required fire clearances, a livestock shed and pens land that is actively disced, and numerous dirt (unpaved) roads that traverse the property. Both developed and disturbed/disced areas are generally devoid of vegetation. Developed areas cover 1.44 acres and disturbed/disced areas cover 70.53 acres, totaling 71.97 acres of non-vegetated areas on the Project site. During early vegetation surveys, approximately 36.1 acres of the Project site were characterized as devoid of vegetation.

Common Wildlife

Plant communities present on the Project site provide habitat for a variety of animal species. While a few species of wildlife may be entirely dependent on a single plant community, most species require a mosaic of plant communities to provide the necessary shelter, water, food, and other life cycle resources. Since some species occur in a particular area for a short period of time (such as during migration), and some are nocturnal or reclusive in nature, they are not always observable during individual surveys. Therefore, a

comprehensive, quantitative assessment of wildlife populations would not be possible without long-term investigations and in some cases, live-trapping. Species presence is discussed in qualitative terms based on information derived from site-specific surveys, the quality and extent of available habitat on the site, and the known habitat requirements and home ranges of species occurring in the region.

Discussed below are common wildlife species observed or expected to occur on the Project site. Special-status wildlife species known to occur, or those with a high potential for occurrence on the site, are discussed under **Special-Status Biological Resources** in this section.

Reptiles and Amphibians

No amphibian species were observed on the Project site during the field investigations. The ephemeral nature of the few, small drainages on site does not provide suitable habitat necessary to sustain those amphibian species that may occur in the region. However, during very wet years, a few common species may have the potential to occur, some of which include California toad (*Anaxyrus boreas halophilus*), Baja California chorus frog (*Pseudacris hypochondriaca*), and blackbelly slender salamander (*Batrachoseps nigriventris*).

Several common reptile species were observed during field investigations, including Great Basin fence lizard (*Sceloporus occidentalis longipes*), California side-blotched lizard (*Uta stansburiana elegans*), red coachwhip (*Masticophis flagellum piceus*), and San Diego gopher snake (*Pituophis catenifer annectens*). Other common reptile species that have the potential to occur on the Project site include western skink (*Plestiodon skiltonianus skiltonianus*), California kingsnake (*Lampropeltis getula californiae*), and southern Pacific rattlesnake (*Crotalus helleri*).

Birds

Birds were observed to be the most diverse of the vertebrates inhabiting the Project site. Thirty-eight bird species were observed during the 2000 spring bird surveys, and during the 2005, 2009, 2011, and 2016 CAGN surveys many of these same species were observed, as well as 21 additional species. Each habitat type present on the Project site supports several resident bird species, and many other species are expected to occur as seasonal migrants to or through the area.

Annual brome grasslands dominating the site provide marginal habitat for several common bird species. Those observed during field surveys include mourning dove (*Zenaida macroura*), western kingbird (*Tyrannus verticalis*), American crow (*Corvus brachyrhynchos*), common raven (*C. corax*), loggerhead shrike (*Lanius ludovicianus*), lark sparrow (*Chondestes grammacus*), and Brewer's blackbird (*Euphagus*

cyanocephalus). Cliff swallow (*Petrochelidon pyrrhonota*), house finch (*Carpodacus mexicanus*), and house sparrow (*Passer domesticus*), are common throughout the area regardless of habitat type.

In the areas that support shrubs, birds observed included California quail (*Callipepla californica*), greater roadrunner (*Geococcyx californianus*), Say's phoebe (*Sayornis saya*), cactus wren (*Campylorhynchus brunneicapillus*), Bewick's wren (*Thryomanes bewickii*), house wren (*Troglodytes aedon*), California thrasher (*Toxostoma redivivum*), spotted towhee (*Pipilo maculatus*), California towhee (*Melozone crissalis*), and white-crowned sparrow (*Zonotrichia leucophrys*). Loggerhead shrike and cactus wren are special-status species and are discussed in more detail under **Special-Status Wildlife** in this section.

Within the prevalence of non-native woodlands on the site, bird species observed were generally those that require the increased structural diversity that trees provide. Several species were observed in this community including red-tailed hawk (*Buteo jamaicensis*), northern flicker (*Colaptes auratus*), California scrub-jay (*Aphelocoma californica*), bushtit (*Psaltriparus minimus*), phainopepla (*Phainopepla nitens*), western tanager (*Piranga ludoviciana*), hooded oriole (*Icterus cucullatus*), Bullock's oriole (*I. bullockii*), lesser goldfinch (*Spinus psaltria*), and American goldfinch (*S. tristis*).

The blue elderberry stands located in the western portion of the site also supports many bird species that commonly occur near seasonal water sources. The following species were observed in this blue elderberry community: warbling vireo (*Vireo gilvus*), common yellowthroat (*Geothlypis trichas*), and song sparrow (*Melospiza melodia*).

Raptor (bird of prey) species observed on the Project site include turkey vulture (*Cathartes aura*), white-tailed kite (*Elanus leucurus*), Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), and great horned owl (*Bubo virginianus*). Two large nests in tall eucalyptus trees (one near the northern boundary and one near the southern boundary) were observed during the 2018 survey. During the 2019 survey, a red-tailed hawk pair was using the northern nest, which contained three nestlings. Cooper’s hawks were also observed both in 2018 and 2019 during the nesting season. Cooper’s hawk and white-tailed kite are special-status species and are discussed in more detail under **Special-Status Wildlife** in this section.

In addition to those species listed above that were observed during the 2000 spring bird surveys, the following birds were observed during the 2005, 2009, and 2011 CAGN surveys: red-shouldered hawk (*Buteo lineatus*), western gull (*Larus occidentalis*), rock pigeon (*Columba livia*), Anna's hummingbird (*Calypte anna*), Nuttall's woodpecker (*Picoides nuttallii*), black phoebe (*Sayornis nigricans*), ash-throated flycatcher (*Myiarchus cinerascens*), northern rough-winged swallow (*Stelgidopteryx serripennis*), ruby-crowned kinglet (*Regulus calendula*), American robin (*Turdus migratorius*), wrentit (*Chamaea fasciata*), northern mockingbird

(*Mimus polyglottos*), European starling (*Sturnus vulgaris*), cedar waxwing (*Bombycilla cedrorum*), yellow-breasted chat (*Icteria virens*), savannah sparrow (*Passerculus sandwichensis*), Lincoln's sparrow (*Melospiza lincolnii*), black-headed grosbeak (*Pheucticus melanocephalus*), red-winged blackbird (*Agelaius phoeniceus*), western meadowlark (*Sturnella neglecta*), and brown-headed cowbird (*Molothrus ater*).

Mammals

Several species of mammals were observed during the field surveys or were identified by the presence of tracks, scats, dens, or remains in owl pellets. The mammals observed appear to be common generalist species, and most were observed in all habitat types. This was particularly true of coyotes (*Canis latrans*), which were observed in several locations on the site. A California mule deer (*Odocoileus hemionus*) was also observed on the site during the 2006 site visit. Other mid-sized mammal species such as bobcat (*Lynx rufus*), striped skunk (*Mephitis mephitis*), common raccoon (*Procyon lotor*), and opossum (*Didelphis virginiana*) were not observed during the field survey, but can be reasonably expected to occur on, or in the vicinity of, the Project site.

Smaller mammals, such as Audubon's cottontail (*Sylvilagus audubonii*), brush rabbit (*S. bachmani*), Botta's pocket gopher (*Thomomys bottae*), agile kangaroo rat (*Dipodomys agilis*), California mouse (*Peromyscus californicus*), and California ground squirrel (*Spermophilus beecheyi*) were observed or detected in both the grassland and scrub communities. Other common small mammals such as California pocket mouse (*Chaetodipus californicus*), deermouse (*Peromyscus maniculatus*), brush mouse (*P. boylii*), and long-tailed weasel (*Mustela frenata*) can be reasonably expected to use on-site resources.

Wildlife Movement

Wildlife corridors link together large, undisturbed areas of wildlife habitat that are otherwise separated by topography, changes in vegetation, suburbanization, roads, or by other human barriers or disturbance. The fragmentation of wildlife habitat by suburbanization creates isolated "islands" of wildlife habitat. Corridors allow animals to move between remaining habitats, which enables depleted populations to be replenished and promotes genetic exchange with separate populations; provide escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (*e.g.*, fire or disease) would result in population or species extinction; and serve as travel paths for individual animals that require large home ranges to satisfy normal requirements such as food, water, and mates. Wildlife movement corridors are generally defined at the regional level as habitat linkages that connect large and otherwise disjunct open space areas such as local, state, and national parks, forests, preserves, and wilderness areas. Within these habitat linkages, riparian strips, canyon bottoms, drainages, and even dirt roads and trails are used by species to facilitate movement. However, within a large natural habitat block

or patch, these features are generally not referred to as movement corridors but, rather, travel paths to facilitate movement within the habitat patch.

The Project site is almost entirely surrounded by various densities of development, with open space and residential development to the north; a railroad, Poindexter Avenue, and light industrial and residential uses to the south; rural residential and Walnut Canyon School to the east, and rural residential and agricultural uses to the west. The surrounding developments and roadways, which include Championship Drive, and Meridian Hills Drive to the north, Walnut Canyon Road/State Route 23/Moorpark Avenue to the east, Poindexter Avenue to the south, fenced Gabbert Road separating the western portion, and Grimes Canyon Road to the west, separate the Project site from the remnant open space outside of the City of Moorpark. Due to the degree of disturbance on site and barriers created by the surrounding development, the Project site is not expected to be used as a movement corridor by wildlife. The drainage that traverses the western portion of the site does not connect to other open space; therefore, it would not serve as a movement corridor. Happy Camp Canyon Regional Park is the nearest designated open space area with potentially suitable habitat for terrestrial animal species such as coyote and deer. This local open space recreation area is situated 3.25 miles northeast of the Project site. Busy State Route 23 and low-density rural development separate the Project site from the park and create deterrents to movement to and from the Project site.

Special-Status Biological Resources

For the purposes of analysis in this EIR, "special-status" refers to those resources that meet one or more of the following criteria:

- Plant and animal species listed by the USFWS or CDFW as threatened or endangered; proposed for listing as threatened or endangered; or listed as a candidate for listing as threatened or endangered.

- Plant and animal species considered as "endangered, rare or threatened" as defined by Section 15380 of the *State CEQA Guidelines*. Section 15380(b) states that a species of animal or plant is "'endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. A species is "rare" when either (A) although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or (B) the species is likely to become endangered within the foreseeable future throughout all or a portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act (FESA).

- Plants included on CNPS Lists 1 or 2. These species are included because the CNPS is an authority recognized by the CDFW on the status of rare plant species in California, and because the criteria for placement on List 1 or List 2 are similar to criteria that CDFW and USFWS use for species considered as candidates for listing or that are already listed as threatened or endangered.

- Animal species designated as "Species of Special Concern" or "Fully Protected" by the CDFW. Although these species have no legal status under the California Endangered Species Act (CESA), the CDFW recommends their protection as the populations of these species are generally declining and they could be listed as threatened or endangered (under CESA) in the future.

- Birds designated by the USFWS as "Birds of Conservation Concern." Although these species have no legal status under FESA, the USFWS recommends their protection as populations of these species are generally declining and they could be listed as threatened or endangered (under FESA) in the future.

- Riparian habitat or other natural communities considered sensitive or otherwise regulated, by the CDFW.

- Drainages or other aquatic habitats under the jurisdiction of the USACE.

- Established resident or migratory wildlife movement corridors.

- Trees, habitats, or other resources protected by local policies, ordinances, or otherwise considered of local concern.

One special-status plant and eight special-status animal species have been observed on the Project site. An additional 27 special-status plants and 52 special-status animal species were evaluated as to their potential to occur on the site based on the presence of suitable habitat, their known geographical range, or historical observations in the site vicinity.

Sensitive Plant Communities

Of the seven vegetation types on the Project site, none have been denoted as G1, G2, or G3 by CDFW.[7] However, on a local level, Ventura County considers coastal sage scrub (inclusive of California sagebrush-

7 *CDFW. Vegetation Classification and Mapping Program, List of California Vegetation Alliances. https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities, accessed June 2021.*
***G1 = Critically Imperiled**—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.*
***G2 = Imperiled**—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.*

deerweed on the Project site) to be a locally important plant community in the general plan. This plant community is protected by Ventura County and requires mitigation if impacted. In addition, the mulefat thicket would be considered sensitive by CDFW due to its regulatory status under Sections 1601–1603 of the Fish and Game Code (see below). Please see the **Vegetation** section, above, for a more detailed discussion of these plant communities and their distributions on the Project site.

California Sagebrush-Deerweed

California sagebrush-deerweed community is considered a component of coastal sage scrub habitat by CDFW, which have a disproportionately high number of rare and endangered plants and thus are of particular conservation concern. Coastal sage scrub is considered a sensitive habitat type by resource agencies because of its scarcity, declining status in Southern California, and known function as preferred habitat for CAGN, cactus wren, and several other special-status animals. Coastal sage scrub habitat is the focus of the state's Natural Community Conservation Planning (NCCP) process within several southern California counties. Most plant communities within coastal sage scrub in Southern California are of high priority for preservation due to the encroachment of development and the large number of special-status species that occur within them. California sagebrush-deerweed community is scattered over the Project site and occurs as discontinuous patches of vegetation, covering approximately 39.13 acres of the approximately 284.73-acre Project site. Because of the community occurrence as disconnected small patches, it is considered of low habitat value on the Project site.

Special-Status Plants

Those plant species listed as endangered or threatened, proposed for listing as endangered or threatened, are candidate species for listing by federal or state resource agencies, or are classified as species-of-concern are all considered special-status. In addition, plants included on Lists 1 or 2 of the CNPS inventory are also considered special-status. Trees under protection by Moorpark City ordinance are considered special-status plants (*e.g.*, Southern California black walnut). All special-status plant species observed, historically occurring, or potentially occurring on the Project site or in its vicinity, are presented in **Table 3.3-2, Summary of Special-Status Plant Species Previously Recorded in the Vicinity of the Hitch Ranch Project Site**.

Assessments for the potential occurrence of special-status species are based upon known ranges, habitat preferences for the species, species database records, and species records from other parcels near the Project

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***G3 = Vulnerable**—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.*

site. The potential for each special-status species to occur on the Project site was evaluated according to the following criteria:

- **None.** Habitat on and adjacent to the Project site is clearly unsuitable for the species requirements (e.g., foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable within the Project site if present (e.g., perennial woody species).
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the Project site.
- **Moderate Potential**. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Project site is unsuitable. The species has a moderate probability of being found on the Project site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the Project site is highly suitable. The species has a high probability of being found on the Project site.
- **Present.** Species is observed on the Project site or has been recorded (e.g., CNDDB, other reports) on or immediately adjacent to the Project site within the last five years.

Table 3.3-2
Summary of Special-Status Plant Species Previously Recorded in the Vicinity of the Hitch Ranch Project Site

Common Name *Scientific Name*	Federal/ State/CNPS Status	Habitat	Growth Form Blooming Period*	Potential to Occur on Site
Lichens				
Woven-spored lichen *Texosporium sancti-jacobi*	—/CDFW Special Plants List/1B.2	Arid to semi-arid shrub-steppe, grassland or savannah communities up to 1000 m msl. Requires natural openings in arid vegetation that are not maintained by fire, and non-saline, non-calcareous soils. Intolerant of disturbed sites.	Lichen N/A	**None**—appropriate habitat is not present on the Project site
Dicots				
Abrams' oxytheca *Acanthoscyphus parishii* var. *abramsii*[8]	—/—/1B.2	Sandy or shale habitats in chaparral communities between 1143 and 2057 m msl	Annual herb June – August	**None** —chaparral habitats are not present on site, and the site lies below the known elevational range of the species.

8 *Treated as Oxytheca parishii var. abramsii in the 1993 edition of The Jepson Manual.*

Common Name *Scientific Name*	**Federal/ State/CNPS Status**	**Habitat**	**Growth Form Blooming Period***	**Potential to Occur on Site**
Braunton's milk-vetch *Astragalus brauntonii*	FE/—/1B.1	Usually on recent burns or disturbed communities in sandstone soils with carbonate layers in closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland communities between 4 and 640 m msl.	Perennial herb January – August	**None —**limestone soils and outcrops are not present on site.
Round-leaved filaree *California macrophylla*	—/—/1B.2	Clay soils in cismontane woodland, valley and foothill grassland communities between 15 and 1200 m msl.	Annual herb March – May	**Low—**appropriate soils are present within areas supporting other native grassland species; however, habitat is substantially disturbed and required vegetation assemblages are unsuitable.
Southern tarplant *Centromadia parryi* ssp. *australis*	—/—/1B.1	Vernally mesic habitats in marshes and swamp margins, valley and foothill grassland, and vernal pool communities between 0 and 427 m msl. Often in disturbed sites near the coast; also in alkaline soils, sometimes with saltgrass (*Distichlis spicata*).	Annual herb May – November	**None—**vernally mesic habitats are not present on site.
Santa Susana tarplant *Deinandra minthornii*[9]	—/Rare/1B.2	Sandstone outcrops and crevices in chaparral and coastal scrub communities between 280 and 760 m msl.	Perennial Deciduous shrub July – November	**None—**suitable sandstone outcroppings or rocky areas are not present on site.
Dune larkspur *Delphinium parryi* ssp. *blochmaniae*	—/—/1B.2	Maritime chaparral and coastal dunes between 0 and 200 m msl.	Perennial herb April – May	**None—**suitable near-shore dune habitat is not present on site.
Umbrella larkspur *Delphinium umbraculorum*	—/—/1B.3	Cismontane woodland communities between 400 and 1600 m msl.	Perennial herb April – June	**None —**suitable native woodland habitat is not present on site.
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	—/—/1B.1	Rocky, clay or serpentinite substrates in coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland communities between 5 and 450 m msl.	Perennial herb April – June	**None—**suitable volcanic rocky or clay soils are not present, and the site lies outside the known range of the species, which is confined to Conejo volcanic outcrops in the western Santa Monica Mountains.

9 *State-listed as Hemizonia minthornii; see this name in the 1993 edition of The Jepson Manual.*

Common Name *Scientific Name*	**Federal/ State/CNPS Status**	**Habitat**	**Growth Form Blooming Period***	**Potential to Occur on Site**
Agoura Hills dudleya *Dudleya cymosa* ssp. *agourensis*[10]	FT/—/1B.2	Rocky, volcanic substrates in chaparral and cismontane woodland communities between 200 and 500 m msl.	Perennial herb May – June	**None**—suitable habitat and soils are not present on site, and the site lies outside the geographic range of the species, which is confined to Agoura Hills and the surrounding area in the central-northern Santa Monica Mountains.
Marcescent dudleya *Dudleya cymosa* ssp. *marcescens*	FT/Rare/1B.2	Rocky, volcanic substrates in chaparral communities between 150 and 520 m msl.	Perennial herb April – June	**None**—suitable chaparral habitat, and volcanic cliffs and canyon walls are not present. The site lies outside the geographic range of the species, which is confined to the Malibu Canyon area of the Santa Monica Mountains.
Santa Monica dudleya *Dudleya cymosa* ssp. *ovatifolia*[11]	FT/—/1B.2	Volcanic, rocky substrates in chaparral and coastal scrub communities between 150 and 1675 m msl.	Perennial herb March – June	**None**—suitable chaparral habitat and volcanic rocky habitats are not present. The site is located outside the geographic range of this species.
Conejo dudleya *Dudleya parva*[12]	FT/—/1B.2	Clay or volcanic substrates in coastal scrub and valley and foothill grassland communities between 60 and 450 m msl.	Perennial herb May – June	**None**—suitable volcanic rocky habitats are not present. The site lies outside the geographic range of the species which is confined to the western Santa Monica Mountains.
Verity's dudleya *Dudleya verityi*	FT/—/1B.2	Volcanic outcrops in chaparral, cismontane woodland, and coastal scrub communities between 60 and 120 m msl.	Perennial herb May – June	**None**—suitable volcanic outcrops are not present. The site is located outside the geographic range of this species which is confined to the westernmost Santa Monica Mountains.

10 A synonym of *Dudleya cymosa ssp. ovatifolia* in the 1993 edition of *The Jepson Manual*; USFWS also uses this name.
11 CNPS listing does not include *Dudleya cymosa ssp. agourensis*.
12 Federally-listed as *Dudleya abramsii ssp. parva*; see this name in the 1993 edition of *The Jepson Manual*.

Common Name *Scientific Name*	**Federal/ State/CNPS Status**	**Habitat**	**Growth Form Blooming Period***	**Potential to Occur on Site**
Conejo buckwheat *Eriogonum crocatum*	—/Rare/1B.2	Conejo volcanic outcrops in chaparral, coastal scrub, valley and foothill grassland communities between50 and 580 m msl.	Perennial herb April – July	**None**—suitable volcanic outcrops are not present. The site is located outside the geographic range of this species which is confined to the westernmost Santa Monica Mountains.
Mesa horkelia *Horkelia cuneata* ssp. *puberula*	—/—/1B.1	Sandy or gravelly sites in chaparral, cismontane woodland, and coastal scrub communities between 70 and 810 m msl.	Perennial herb February – July (September)	**None**—although suitable habitat is present, this perennial herb would be recognizable at any time of year regardless of flowering condition. It has not been detected within suitable habitat areas over the course of repeated surveys and is presumed absent on site.
Southern California black walnut *Juglans californica*[13]	—/—/4.2	Chaparral, cismontane woodland and coastal scrub communities between 50 and 900 m msl.	Deciduous tree March – August	**Present**—Southern California black walnut individuals were observed on-site prior to the 2006 fire; 14 were inventoried in 2011; 2 multi-stemmed clumps were observed in 2018. During the most recent inventory in 2020 by LNDG, 6 Southern California black walnut trees were documented on the Project site.
Ross's pitcher sage *Lepechinia rossii*	—/—/1B.2	Soils derived from fine-grained, reddish sedimentary rock in chaparral communities between 305 and 790 m msl.	Perennial shrub May – September	**None**—the site is outside the known geographic and elevational range of the species.
Lyon's pentachaeta *Pentachaeta lyonii*	FE/SE/1B.1	Rocky and clay soils in openings within chaparral, coastal scrub, and valley and foothill grassland communities between 30 and 630 m msl.	Annual herb March – August	**None**—suitable grassland habitat is present; however appropriate volcanic-derived clay soils are not present on the site.

13 A synonym of *Juglans californica var. californica* in the 1993 edition of *The Jepson Manual*.

Common Name *Scientific Name*	**Federal/ State/CNPS Status**	**Habitat**	**Growth Form Blooming Period***	**Potential to Occur on Site**
White rabbit-tobacco *Pseudognaphalium leucocephalum*[14]	—/—/2B.2	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats between 0 and 2100 m msl.	Perennial herb (July) August – November (December)	**Low**—appropriate soils are present in low lying areas of the site, including drainage courses and swales; however, habitat is substantially disturbed and required vegetation assemblages are unsuitable.
Chaparral ragwort *Senecio aphanactis*	—/—/2.2	Drying alkaline flats in chaparral, cismontane woodland, and coastal scrub habitats between 15 and 800 m msl.	Annual herb January – April	**None**—suitable habitat, drying alkaline flats, is not present on site.
Greata's aster *Symphyotrichum greatae*[15]	—/—/1B.3	Mesic habitats in broadleaved upland forest, chaparral, cismontane woodland, riparian woodland and lower montane coniferous forest communities between 300 and 2010 m msl.	Perennial rhizomatous herb June – October	**None**—suitable mesic woodland habitat is not present on the Project site.
Monocots				
Plummer's mariposa lily *Calochortus plummerae*	—/—/4.2	Rocky and sandy sites, usually of granitic or alluvial material in coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest communities between 100 and 1700 m msl.	Perennial bulbiferous herb May – July	**Low**—suitable habitat is present in scrub and grassland habitats on site; however, habitat is substantially disturbed and required vegetation assemblages are not suitable.
Intermediate mariposa lily *Calochortus weedii* var. *intermedius*	—/—/1B.2	Rocky, calcareous soils in chaparral, coastal scrub, and valley and foothill grassland communities between 105 and 855 m msl.	Perennial bulbiferous herb May – July	**None**—appropriate soils are not present on site.
Ojai fritillary *Fritillaria ojaiensis*	—/—/1B.2	Mesic, rocky habitats in broad-leafed upland forest, chaparral, lower montane coniferous forest communities between 300 and 998 m msl.	Perennial bulbiferous herb February – May	**None**—suitable mesic, rocky habitat is not present on the site.
Vernal barley *Hordeum intercedens*	—/—/3.2	Saline flats and depressions in coastal dune, coastal scrub, valley and foothill grassland and vernal pool communities between 5 and 1000 m msl.	Annual herb March – June	**None**—seasonally mesic or saline habitats required by this species are not present on the Project site.

14 Treated in the 1993 edition of *The Jepson Manual* as *Gnaphalium leucocephalum*.

15 Treated as *Aster greatae* in the 1993 edition of *The Jepson Manual*.

Common Name *Scientific Name*	Federal/ State/CNPS Status	Habitat	Growth Form Blooming Period*	Potential to Occur on Site
Peninsular nolina *Nolina cismontana*	—/—/1B.2	Sandstone, shale and gabbro substrates in chaparral and coastal scrub communities between 140 and 1275 m msl.	Perennial evergreen shrub May – July	**None**—suitable substrate is not present on the site. This species is highly conspicuous at all times and was not observed on site during the course of numerous surveys
California Orcutt grass *Orcuttia californica*	FE/SE/1B.1	Vernal pools between 15 and 660 m msl.	Annual herb April – August	**None**—suitable vernal pool habitat is not present.

** – Months given in parentheses indicate dates on which unusually early or late flowering records have been reported*

Status Abbreviations

Federal
FE: federal listed as Endangered
FT: federally listed as Threatened

State
SE: state listed as Endangered

CNPS lists
1B: rare, threatened, or endangered in California and elsewhere
2: rare, threatened, or endangered in California, but more common elsewhere
3: more information needed to determine rarity
4: limited distribution

CNPS threat ranks
0.1: seriously threatened in California
0.2: fairly threatened in California
0.3: not very threatened in California

Special-Status Plant Species Observed on the Project Site

Southern California Black Walnut (*Juglans californica* var. *californica*); CNPS List 4.

In Ventura County, California walnut trees over 3-inches DBH on private property within Scenic Resources Protection Zones are considered protected trees. CNPS ranks the black walnut as "4.2, limited in distribution, fairly threatened in California." Four walnut trees with a DBH equal to or greater than 8-inches were observed within the coyote brush scrub and annual brome grassland plant communities in the western portion of the Project site (**Figure 3.3-2**) during the 2001 tree surveys. The trees were of varying ages and appeared to be in good health; however, the 2006 fire burned the walnut trees. The 2011 tree survey concluded that one qualifying tree survived the fire, along with 11 additional non-qualifying trees. However, the most recent Tree Survey performed by the L. Newman Design Group, Inc. in December 2019 (LNDG, August 6, 2020) indicates that there are currently six Southern California black walnut trees on the Project site.

Locally Protected Trees

Mature non-native trees, which are of local special interest, are present on the site. The City of Moorpark tree ordinance (No. 101) provides for the protection of mature trees with a cross-sectional area of all major stems of 72 or more square inches (equivalent to greater than 9.6 inches DBH), as measured at 4.5 feet above

the root crown. As previously stated, a tree survey was initially conducted on the site in 1995 by Nature Buffs. A total of 528 trees were observed at that time which qualified as mature trees, including gum, pepper (*Schinus sp.)*, olive (*Olea europaea*), ash (*Fraxinus velutina*), tamarisk (*Tamarix ramosissima*), African sumac (*Rhus lancea),* and California black walnut (*Juglans californica*). Most of these trees were affected by the 2003 and 2006 fires. During July 2011, a new tree survey was conducted by Rincon in accordance with the requirements set forth by the City of Moorpark. Mature/qualifying trees were located in 2011 by GPS and identified to genus and species and common name. DBH, and approximate canopy height and diameter were also measured, and overall health was assessed. A letter grade of health, per City requirements, was assigned: A for outstanding; B for good; C for average; D for below average, and Dead, as applicable. Immature/non-qualifying trees were not assessed for health and thus not assigned a letter grade although it should be noted that most of the immature trees were classified as resprouts or root sprouts of burned trees and were for the most part in excellent health.

A Tree Survey performed by LNDG, included as **Appendix 3.3-G** to this Draft EIR, in July 2020 found 282 mature trees on the Project site. Nearly all of the trees on the Project site are either blue gums (35 percent) or Peruvian pepper trees (52 percent). The blue gums were historically planted for agricultural purposes and have become naturalized. The pepper trees are a common landscape plant and also have become naturalized.

The two dominant species on this site, along with four other species present, are included on the 410 - Prohibited Plant List (April 2019) put out by the Ventura County Fire Protection District. This is a list of plants that the Ventura County Fire Department recommends be removed or thinned in Defensible Spaces and Fuel Modification Zones as they define them. The number and species of trees present on the subject site are shown in **Table 3.3-3, Mature Trees on the Hitch Ranch Site**.

Table 3.3-3
Mature Trees on the Hitch Ranch Site

Common name	*Scientific name*	Number of mature trees
Cypress*	*Cupressus sp*	1
Blue gum*	*Eucalyptus globulus*	98
White gum*	*Eucalyptus viminalis*	3
Pine tree*	*Pinus sp.*	1
African sumac	*Rhus lancea*	2
Elderberry	*Sambucus mexicana*	19
Peruvian pepper tree*	*Schinus molle*	146
Chinese elm	*Ulmus parvifolia*	1
Mexican fan palm*	*Washingtonia robust*	5
California black walnut	*Juglans californica*	6
Totals		**282**

** - Trees that are included on the Ventura County Fire Protection District, 410-Prohibited Plant List.*

Source:
L. Newman Design Group, Inc., Tree Report, August 2020

Special-Status Wildlife

A list of all special-status wildlife species observed, historically occurring, or potentially occurring on the Project site or in the vicinity is provided below in **Table 3.3-4, Summary of Special-Status Wildlife Species Observed or with Potential to Occur on the Hitch Ranch Project Site**. Those species observed during site surveys or with a high potential of occurring within the Project site boundary are discussed in greater detail later in this section. The potential-to-occur criteria indicated in **Table 3.3-4** is the same as the criteria indicated previously for **Table 3.3-2**.

Table 3.3-4
Summary of Special-Status Wildlife Species Observed or with Potential to Occur on the Hitch Ranch Project Site

Common name *Scientific name*	Federal/State/Other status	Habitat	Current potential to occur on site
Insects			
Santa Monica grasshopper *Trimerotropis occidentiloides*	—/—/CDFW Special Animals List	Known from the Santa Monica Mountains Found on bare hillsides and along dirt trails in chaparral.	**None**—the site is outside the known range of the species, and chaparral communities are not present on site.
Fish			
Santa Ana sucker *Catostomus santaanae*	FT, FSS/SSC/—	Habitat generalist, but prefers sand, rubble, or boulder bottoms, in cool, clear water with algae to graze.	**None**—aquatic habitats are not present on the Project site.
Arroyo chub *Gila orcuttii*	FSS/SSC/—	Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	**None**—aquatic habitats are not present on the Project site.
Southern steelhead—Southern California ESU *Oncorhynchus mykiss irideus*	FT/SSC/—	Federal listing refers to populations from the Santa Maria River south to the southern extent of the species range (San Mateo Creek in San Diego County).	**None**—aquatic habitats are not present on the Project site.
Amphibians			
Sierra Madre yellow-legged frog *Rana muscosa*	FE, FSS/SSC/—	Always encountered within a few ft. of water. Tadpoles may require 2 to 4 years to complete their aquatic development.	**None**—no suitable habitat on site.
Western spadefoot *Spea hammondii*	BLMS/SSC/—	Vernal pools and other areas of seasonally ponded water, primarily in grasslands habitats, but can be found in valley-foothill hardwood woodlands.	**Low**—suitable habitat may be present in low-lying areas subject to ponding. No evidence of ponding (*e.g.*, shrink-swell soils) was noted on site in May 2009 or June 2011.

Common name *Scientific name*	Federal/State/Other status	Habitat	Current potential to occur on site
Reptiles			
Coastal whiptail *Aspidoscelis tigris stejnegeri*	—/—/CDFW Special Animals List	Various habitats in firm, sandy or rocky soils within sparse vegetation, open areas, woodlands and riparian communities of deserts and semi-arid areas.	**Moderate**—suitable habitat is present over much of the site in grassland and scrub vegetation. This species is typically common where it occurs, and the lack of any observation of this species suggests that if it is present on site, it is likely to occur in very low numbers.
Western pond turtle *Emys marmorata*	BLMS, FSS/SSC/—	Requires basking sites such as partially submerged logs, vegetation mats or open mud banks and needs suitable nesting sites in permanent or near permanent bodies of water in many habitat types below 2000 m msl.	**None**—no suitable habitat on site.
Coast horned lizard *Phrynosoma blainvillii*	BLMS, FSS/SSC/—	Prefers friable, rocky or shallow sandy soils in scrub and chaparral habitats in arid and semi-arid regions. Requires the presence of native ants for prey.	**Moderate**—suitable habitat is present over much of the site in grassland and scrub vegetation.
Coast patch-nosed snake *Salvadora hexalepis virgultea*	—/SSC/—	A low shrub structure of minimum density. Presumed to take refuge and perhaps overwinter in burrows or woodrat nests. Preys on whiptail lizards (*Aspidoscelis*).	**Low**—suitable habitat is present in scrub vegetation on site; however, woodrat nests have not been reported on site, and whiptail lizards were not observed.
Two-striped garter snake *Thamnophis hammondii*	BLMS, FSS/SSC/—	Associated with permanent or semi-permanent bodies of water in a variety of habitats from sea level to 2400 m (8000 ft). Take cover in mammal burrows, crevices, and surface objects. Basks on streamside rocks or on densely vegetated stream banks.	**None**—no suitable habitat on site.
South coast garter snake *Thamnophis sirtalis* ssp.	—/SSC/—	Marsh and upland habitats near permanent water with well-developed strips of riparian vegetation on the Southern California coastal plain from Ventura County to San Diego County and from sea level to approximately 850 m msl.	**None**—no suitable habitat on site.

Common name *Scientific name*	Federal/State/Other status	Habitat	Current potential to occur on site
Birds			
Cooper's hawk (nesting) *Accipiter cooperi*	—/CDFW Watch List/—	Nests in dense oak or riparian woodlands, or low scrub of treeless areas. The wooded area is often near the edge of a field or water opening.	**High**—observed foraging and perched on site during nesting season in 2018 and 2019 so potential exists for nesting.
Sharp-shinned hawk (nesting) *Accipiter striatus*	—/CDFW Watch List/—	Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. North facing slopes, with plucking perches are critical requirements. All habitats except alpine, open prairie, and bare desert used in winter.	**Low**—foraging individuals may be occasionally present during migration. The site is outside the breeding range of the species.
Tricolored blackbird (nesting colony) *Agelaius tricolor*	BCC, BLMS/SSC/ USBC, AWL, ABC	Highly colonial species, requiring open water, protected nesting substrate and foraging areas with insect prey within a few km of the colony.	**None**—no suitable habitat on site.
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	—/CDFW Watch List/—	Frequents relatively steep, often rocky hillsides with grass and forb patches. Resident in Southern California coastal sage scrub and mixed chaparral.	**Present**—observed foraging. Suitable nesting habitat is primarily concentrated within coastal sage scrub habitat located to the west of Gabbert Road and off-site to the north.
Grasshopper sparrow *Ammodramus savannarum*	—/—/CDFW Special Animals List	Occurs in dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches.	**High**—suitable habitat is present over most of the site in annual grassland vegetation.
Bell's sage sparrow *Amphispiza belli belli*	BCC/CDFW Watch List/—	Nests on the ground beneath shrubs or in shrubs 6 to 18 inches above the ground within chaparral communities dominated by fairly dense stands of chamise or in coastal scrub in southern part of the range.	**High**—suitable habitat is present in scrub vegetation on site.
Golden eagle (nesting and wintering) *Aquila chrysaetos*	BCC, BLMS/CDFW Watch List, CDFW Fully Protected/—	Nests and winters in cliff walls, large trees and rolling foothill and mountain areas supporting sage-juniper and desert vegetation.	**Moderate**—foraging habitat is present, but nesting would not occur on site.

Common name *Scientific name*	Federal/State/Other status	Habitat	Current potential to occur on site
Long-eared owl (nesting) *Asio otus*	—/SSC/—	Riparian bottomlands grown to tall willows and cottonwoods, also belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks or magpies for breeding.	**None**—no suitable habitat on site.
Burrowing owl (burrow sites) *Athene cunicularia*	BCC, BLMS/SSC/—	Open, dry grassland and desert habitats throughout California, or scrublands characterized by low-growing, widely spaced vegetation. Dependent upon burrowing mammals, especially California ground squirrel.	**Moderate**—annual vegetation on-site varies significantly in height and density from year to year. Annual vegetation in 2011 was low-growing (less than 12 inches) in many areas of the site, and ground squirrels and their burrows were abundant. No evidence of owl use was noted in 2018 and 2019 surveys.
Ferruginous hawk (wintering) *Buteo regalis*	BCC, BLMS/CDFW Watch List/AWL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon/juniper habitats. Eats mostly lagomorphs, ground squirrels and mice. Population trends may follow lagomorph cycles.	**Moderate**—foraging habitat is present, but nesting would not occur on site due to the disturbed condition of the site.
Costa's hummingbird (nesting) *Calypte costae*	—/—/USBC, AWL, ABC	Occurs primarily in arid scrub and chaparral habitats and in riparian edge. Various herbaceous and woody plants provide flower nectar; also takes small insects and spiders. In winter, exotic shrubs such as bottlebrush important. Nest sometimes located close to water source, but more often well away from water.	**Moderate**—suitable habitat is present within scrub vegetation on site.

Common name *Scientific name*	**Federal/State/Other status**	**Habitat**	**Current potential to occur on site**
Coastal cactus wren *Campylorhynchus brunneicapillus sandiegensis*	BCC, FSS/SSC/—	Southern California coastal sage scrub. Tall *Opuntia* cacti are required for nesting and roosting. Sensitive designation includes San Diego and Orange County populations only.	**High**—this species was heard calling on site during coastal California gnatcatcher surveys in 2021. Suitable nesting habitat is present in the undisturbed coast prickly pear scrub to the north; however, the coast prickly pear habitat on-site is disturbed and of low quality for nesting. Nonetheless, this species likely forages (and could nest) on the Project site.
Northern harrier (nesting) *Circus cyaneus*	—/SSC, CDFW Fully Protected/—	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Nests on ground in shrubby vegetation, in emergent wetland or along rivers or lakes, but may nest in grasslands, grain fields, or on sagebrush flats several miles from water.	**Moderate**—foraging habitat is present, but nesting would not occur on site.
Western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	FC, BCC, FSS/SE/—	Nests in riparian jungles of willow often mixed with cottonwood with an understory of blackberry, nettles or wild grape.	**None**—no suitable habitat on site.
Yellow warbler (nesting) *Dendroica petechia brewsteri*	—/SSC/—	Riparian plant associations, preferably of willow, cottonwood, aspen, sycamore and alder for nesting and foraging. Also nests in montane shrubbery of open conifer forests.	**Low**—may occur seasonally as a migrant, but nesting would not occur on site due to the disturbed condition of the site.
White-tailed kite (nesting) *Elanus leucurus*	—/CDFW Fully Protected/—	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows or marshes for foraging close to close to isolated, dense-topped trees for nesting and perching.	**Moderate**—observed foraging on site. An active nest was observed adjacent to the eastern site boundary during biological surveys. The species is presumed to forage on site; and may rarely nest in trees on site.

Common name *Scientific name*	Federal/State/Other status	Habitat	Current potential to occur on site
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	FE, FSS (full species)/SE (full species)/USBC, AWL, ABC (all include full species)	Dense willow thickets are required for nesting and roosting. Nesting site usually near languid stream, standing water, or seep.	**None**—no well-developed riparian woodlands with water present are found on site. No suitable nesting habitat on site.
Horned lark *Eremophila alpestris actia*	—/CDFW Watch List/—	Builds grass-lined nest; cup-shaped in depression on ground in the open. Frequents grasslands and other open habitats with low, sparse vegetation.	**High**—suitable habitat is present over much of the site in sparse annual grassland and scrub vegetation.
Prairie falcon (nesting) *Falco mexicanus*	BCC/CDFW Watch List/—	Breeds on cliffs in dry, open terrain and forages far afield, even to marshlands and ocean shores.	**Moderate**—foraging habitat is present, but nesting would not occur on site.
California condor *Gymnogyps californianus*	FE/SE, CDF, CDFW Fully Protected/ USBC, AWL, ABC	Nets in deep canyons containing clefts in rocky walls of mountain ranges of moderate altitude. Forages up to 100 miles from nest sites over vast expanses of open savanna, grasslands and foothill habitats.	**Low**—there are no known recorded occurrences on condor in the vicinity of the site and nesting habitat is not present.
Yellow-breasted chat (nesting) *Icteria virens*	—/SSC/—	Summer resident in riparian thickets of willow and other brushy tangles such as blackberry and wild grape near water courses. Forages and nests within 10 ft. of the ground.	**Low (nesting)**—one transient individual observed on site; however, no suitable nesting habitat is present.
Loggerhead shrike (nesting) *Lanius ludovicianus*	BCC/SSC/—	Found in broken woodlands, savanna, pinyon-juniper woodland, Joshua tree woodland, riparian woodland, desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**Moderate**—this species has been observed foraging on site and nesting habitat is present.
Coastal California gnatcatcher *Polioptila californica californica*	FT/SSC/USBC, AWL, ABC	Obligate permanent resident of coastal sage and alluvial scrub habitats below 800 m msl in Southern California.	**Present**— A known occupied site is situated approximately 1-mile east of the subject property. Surveys following USFWS protocol guidelines were completed in 1998, 2000, 2003, 2005, 2009, 2011, 2016 and 2021. In 1998, 2003, 2005, and 2011 no CAGN were observed or detected. In 2000 a single

Common name *Scientific name*	Federal/State/Other status	Habitat	Current potential to occur on site
			juvenile CAGN was observed on a single occasion. . In 2021, individuals and a pair were observed foraging within California sagebrush-deerweed scrub on the site. However, no nests were observed on site and the individuals observed were nesting within the undisturbed habitat offsite to the north. Conditions on the Hitch Ranch Project site have changed considerably since 2003 as a result of the brush fires that occurred on site. Fires resulted in initially reducing the potential habitat for CAGN, some of which has regrown. The Easy Fire in late 2019 further removed suitable and occupied habitat in the region to the southeast, and ongoing cattle grazing has substantially suppressed native plant growth throughout the Project site to the east of Gabbert Road. Two pair of mature CAGN and one juvenile female were observed on the Project site during the 2021 survey.
Bank swallow (nesting) *Riparia riparia*	—/ST/—	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	**None**—no suitable habitat on site.
Allen's hummingbird *Selasphorus sasin*	—/—/AWL, USBC	Breeds in sparse and open woodlands, coastal redwoods, and sparse to dense scrub habitats.	**Moderate**—foraging and nesting habitat are both present in trees and scrub vegetation on site.

Common name *Scientific name*	Federal/State/Other status	Habitat	Current potential to occur on site
Least Bell's vireo *Vireo bellii pusillus*	FE, BCC/SE/USBC, AWL, ABC	Thickets of willow and other low shrubs afford nesting and roosting cover. Usually found near water, but also inhabits thickets along dry, intermittent streams.	**None**—no suitable habitat on site.
Mammals			
Pallid bat *Antrozous pallidus*	FSS, BLMS/SSC/ WBWG High	A wide variety of habitats is occupied, including grasslands, shrublands, woodlands, and forests from sea level to mixed conifer forests. Most common in open, dry habitats with rocky areas for roosting. Forages over open ground. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Roost must protect bats from high temperatures. Night roosts may be in more open sites, such as porches and open buildings. Needs water. Very sensitive to disturbance of roosting sites.	**Low**—foraging habitat is present but roosting would not occur on site.
Townsend's big-eared bat *Corynorhinus townsendii*	FSS, BLMS/SSC/WBWG High	Caves and buildings in desert scrub, pine and pinyon juniper habitats throughout the western U.S.	**Low**—foraging habitat is present but roosting would not occur on site.
Spotted bat *Euderma maculatum*	BLMS	Habitats occupied include arid deserts, grasslands and mixed conifer forests from below sea level in California to above 3000 m (10000 ft) in New Mexico. Feeds in flight, over water, and near the ground. Prefers to roost in rock crevices. Occasionally found in caves and buildings. Cliffs provide optimal roosting habitat. Drinks water, but has high ability to concentrate urine compared to bats of mesic habitats.	**Low**—foraging habitat is present but roosting would not occur on site.

Common name *Scientific name*	**Federal/State/Other status**	**Habitat**	**Current potential to occur on site**
Western mastiff bat *Eumops perotis californicus*	BLMS/SSC/WBWG High	Roosts in crevices in cliff faces, high buildings, trees and tunnels within many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, *etc.*	**Low**—foraging habitat is present but roosting would not occur on site.
Hoary bat *Lasiurus cinereus*	—/—/WBWG Medium	Habitats suitable for bearing young include all woodlands and forests with medium to large-size trees and dense foliage. Generally roosts in dense foliage of medium to large trees. Preferred sites are hidden from above, with few branches below, and have ground cover of low reflectivity. Requires water. Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding.	**Low**—foraging habitat is present but roosting would not occur on site.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	—/SSC/—	Shrub habitats and intermediate canopy stages of shrub habitats and open shrub/herbaceous and tree/herbaceous edges.	**Moderate**—One San Diego black-tailed jackrabbit was observed on site during the 1993 site survey. No jackrabbits were observed during the 1998 or subsequent surveys, indicating that the level of disturbance to habitat on site may have resulted in the dispersal of this species onto more suitable habitat.
California leaf-nosed bat *Macrotus californicus*	FSS	Roosts in rocky, rugged terrain with mines or caves in riparian, wash, succulent scrub, alkali scrub and palm oasis habitats of deserts.	**Low**—foraging habitat is present but roosting would not occur on site.

Common name *Scientific name*	Federal/State/Other status	Habitat	Current potential to occur on site
Western small-footed myotis *Myotis ciliolabrum*	BLMS/—/WBWG Medium	A common bat of arid uplands in California. Coastal California from Contra Costa County to the Mexican border, and west and east sides of the Sierra Nevada, and Great Basin and desert habitats from Modoc to Kern and San Bernardino Counties It occurs in a wide variety of habitats, primarily in relatively arid wooded and brushy uplands near water from sea level to 8900 ft. Often seen foraging among trees and over water. Seeks cover in caves, buildings, mines, crevices, and occasionally under bridges and under bark. Separate night roosts may be used, and have been found in buildings and caves. Maternity colonies of females and young are found in buildings, caves, and mines. Requires water. Humid roost sites are preferred.	**Low**—foraging habitat is present but roosting would not occur on site.
Long-eared myotis *Myotis evotis*	BLMS/—/WBWG Medium	Widespread in California, but generally uncommon in most of its range. Occurring along the entire coast and in the Sierra Nevada, Cascades, and Great Basin from Oregon south through the Tehachapi Mts. to the Coast Ranges. Found in nearly all brush, woodland, and forest habitats, from sea level to at least 2700 m (9000 ft), but coniferous woodlands and forests seem to be preferred. Roosts in buildings, crevices, spaces under bark, and snags. Caves used primarily as night roosts. Roosts singly, or is found in fairly small groups. Nursery colonies of 12 – 30 individuals are found in buildings, crevices, snags, and behind bark. Probably requires water.	**Low**—foraging habitat is present but roosting would not occur on site.

Common name *Scientific name*	Federal/State/Other status	Habitat	Current potential to occur on site
Fringed myotis *Myotis thysanodes*	BLMS/—/WBWG High	Widespread in California, occurring in all but the Central Valley and Colorado and Mojave deserts. Irregular but may be common locally. Occurs in a wide variety of habitats from sea level to 2850 m (9350 ft). Optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer, generally at 1300 – 2200 m (4000 – 7000 ft). Roosts in caves, mines, buildings, and crevices. Separate day and night roosts may be used. Maternity colonies of up to 200 individuals located in caves, mines, buildings, or crevices. Requires water. Uses open habitats, early successional stages, streams, lakes, and ponds as foraging areas.	**Low**—foraging habitat is present but roosting would not occur on site.
Long-legged myotis *Myotis volans*	BLMS/SSC/WBWG Medium	Restricted in California to lowlands of Colorado River and adjacent mountain ranges, in San Bernardino, Riverside, and Imperial Counties, although more common farther east. Once common; has experienced significant declines, and status in California is uncertain. Habitats occupied in California include desert scrub, desert succulent shrub, desert wash, and desert riparian. Colonial cave-dweller, occurring in colonies of several thousand individuals in most of its range. Mines and buildings also may be used. Hibernation caves have high humidity, often with standing or running water and little air movement. Uses temporary night roosts. Nursery colonies are in the hibernation cave or another cave. Occasionally other sites, such as bridges, are used. Optimal sites are relatively warm, with little human disturbance. Probably requires water.	**Low**—foraging habitat is present but roosting would not occur on site.

Common name *Scientific name*	Federal/State/Other status	Habitat	Current potential to occur on site
Yuma myotis *Myotis yumaensis*	BLMS/—/WBWG Low – Medium	Common and widespread in California outside the Mojave and Colorado Desert regions, except for the mountain ranges bordering the Colorado River Valley. Found in a wide variety of habitats ranging from sea level to 11000 ft., uncommon to rare above 8000 ft. Optimal habitats are open forests and woodlands with sources of water over which to feed. Roosts in buildings, mines, caves, or crevices, abandoned swallow nests and under bridges. Maternity colonies of several thousand females and young may be found in buildings, caves, mines, and under bridges. Warm, dark sites are preferred.	**Low**—foraging habitat is present but roosting would not occur on site.
San Diego desert woodrat *Neotoma lepida intermedia*	—/SSC/—	Moderate to dense canopies in coastal scrub of Southern California from San Diego County to San Luis Obispo County Particularly abundant in rock outcrops, rocky cliffs and slopes.	**Moderate**—suitable habitat is present, but woodrat nests have not been reported on site.
American badger *Taxidea taxus*	—/SSC/—	Drier, open stages of most shrub, forest, and herbaceous habitats with friable soils.	**Moderate**—despite the lack of records in the site vicinity, and one individual was observed during a biological survey in March 2016 and its burrow on the site was mapped suitable habitat is present, and this wide-ranging species is known to occur in the region.

Status abbreviations

Federal
FE: Federally listed as Endangered
FC: Federal Candidate species
BLMS: Bureau of Land Management Sensitive Species
FSS: USDA Forest Service Sensitive Species
BCC: Fish and Wildlife Service Birds of Conservation Concern

State
AWL: Audubon Watchlist
ST: State-listed as Threatened
CDF: California Department of Forestry and Fire Protection Sensitive Species
SSC: CDFW Species of Special Concern

Other
ABC: American Bird Conservancy Green List
USBC: United States Bird Conservation Watch List
WBWG: Western Bat Working Group: High, Medium and Low priority

Special-Status Wildlife Species Observed on Site

White-tailed kite (*Elanus leucurus*); California Fully Protected.

White-tailed kites most commonly occur near mature riparian habitat, where mature riparian-associated trees provide suitable nesting habitat. This species is relatively common to the area, but in small numbers. Two kites were observed foraging over the site during the spring 1998 surveys and this species was also detected in the vicinity during CAGN surveys in 2021. The open space on the Project site provides foraging habitat, but nesting habitat is not present.

Cooper's hawk (*Accipiter cooperii*); California Species of Special Concern.

This small hawk hunts small birds in flight and is most commonly associated with woodland habitat for nesting and roosting. The open space on and adjacent to the Project site serves as suitable foraging habitat, and Cooper's hawks have been observed to forage on site during the breeding season as recently as in 2018, 2019, and during CAGN surveys in 2021. However, suitable nesting habitat comprised of dense oak or riparian woodlands is not present on site.

Yellow-breasted chat (*Icteria virens*); California Species of Special Concern.

Yellow-breasted chats are occasional winter and spring migrants in the region, most commonly occurring in dense riparian habitat. A single chat was observed on site during the spring 1998 surveys. As mature willow riparian habitat is not present on the site, it is assumed that the observed bird was a transient.

Loggerhead shrike (*Lanius ludovicianus*); Federal Species of Concern, California Species of Special Concern.

The loggerhead shrike is a predator of insects, small rodents, and reptiles. Steady declines in populations in the Midwest and eastern United States have led to the loggerhead shrike's federal and state status, although Southern California populations have remained stable. This species was observed during the 1993, 1998, 2007, and 2011 surveys. Nesting and foraging habitat is present for the loggerhead shrike on the site. However, no nests have been observed.

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*); Federal Species of Concern, California Species of Special Concern.

The Southern California rufous-crowned sparrow is commonly associated with coastal sage scrub communities in Southern California. Optimal habitat consists of low density shrub associations on south-

facing slopes adjacent to grasslands. This bird was observed on the Project site during the spring 1998 surveys and during CAGN surveys in 2021. Suitable nesting habitat is present on the site.

Coastal cactus wren (*Campylorhynchus brunneicapillus couesi*); California Species of Special Concern.

The coastal cactus wren typically inhabits coastal sage scrub vegetation with thickets of prickly pear or cholla cactus. This species was heard calling on site during the 2005 and 2021 CAGN surveys. Nests and suitable habitat are present in the coast prickly pear scrub adjacent to and north of the Project site.

Coastal California gnatcatcher (*Polioptila californica californica*); Federally Listed Threatened, California Species of Special Concern.

A site known to be occupied by CAGN is situated approximately 1-mile east of the subject property. USFWS requires that focused (protocol) surveys be conducted where suitable habitat (coastal sage scrub) exists on Project sites within this species' range. To determine the presence or absence of CAGN on the Project site, surveys following USFWS protocol guidelines were completed in 1998, 2000, 2003, 2005, 2009, 2011, 2016 and 2021. In 1998, 2003, 2005, and 2011 no CAGN were observed or detected. In 2000 a single CAGN was observed on a single occasion. As previously discussed, brush fires have occurred on site over the years, initially reducing the potential habitat for CAGN. By 2019, some of this scrubland habitat had regrown, and with the Easy Fire of late 2019 having burned suitable habitat to the south and east, this habitat on Hitch Ranch may have become attractive to surviving individuals or pairs seeking for new habitat. In 2021, a USFWS protocol survey for CAGN was conducted that consisted of six surveys. During these surveys, CAGN were observed within the disturbed California sagebrush-deerweed scrub on the Project site. The individuals, including a pair, were observed onsite that were presumed to be nesting within the undisturbed habitat offsite to the north. No nests were observed on site and this species is not expected to nest on site due to the disturbed condition of the habitat from previous fires that scorched the property and active cattle grazing. Refer to **Appendices 3.3-C**, **3.3-D, and 3.3-E, Gnatcatcher Surveys**.

San Diego black-tailed jackrabbit (*Lepus californicus bennettii*); Federal Species of Concern, California Species of Special Concern.

The San Diego black-tailed jackrabbit was observed in the California sagebrush-deerweed habitat on the Project site during the 1993 survey. While there is little scientific data available on the habitat requirements of this subspecies, much of its historic range along the coastal plain of Southern California has been lost. Remaining populations of this hare are now widely scattered and the remnant populations are substantially smaller. Although the site supports suitable habitat for this species, no jackrabbits have been observed during subsequent biological surveys since 1993, indicating that the level of disturbance to habitat on site may have resulted in the dispersal of this species onto more suitable habitat.

Jurisdictional Water Resources

A jurisdictional delineation field survey was conducted by Rincon (included as **Appendix 3.3-I** to this EIR) on December 30, 2019 and May 26, 2021 (Rincon Senior Biologist Robin Murray) that included walking the entire study area to identify potentially jurisdictional resources, including potential wetlands and non-wetland waters that exhibit an ordinary high-water mark (OHWM) and that may constitute WOTUS, waters of the State, and/or riparian resources subject to the jurisdiction of the CDFW.

Literature Review

Prior to the field survey, Rincon reviewed available background information and published datasets to understand the environmental setting and context of the study area to aide in characterizing the nature and extent of jurisdictional waters potentially occurring on the subject site. These existing resources included aerial imagery depicting the study area (Google Earth 2019), the most recent Moorpark, California USGS 7.5-minute topographic quadrangle map[16], and the Web Soil Survey.[17] The National Hydrography Dataset[18] and the National Wetlands Inventory (NWI)[19] were reviewed to determine if any potential wetlands and/or other waters had been previously mapped on or in the vicinity of the proposed Project site. The State Soils Data Access (SDA) Hydric Soils List[20] was also reviewed to determine if any soil map unit types mapped on or near the study area were classified as hydric. Rincon also reviewed precipitation records for the area to understand typical precipitation patterns and average annual precipitation totals.

Field Delineation

Rincon surveyed the study area on foot for potential wetlands and non-wetland aquatic resources including streams that might exhibit an OHWM and that might constitute waters of the U.S. and/or State. During the field delineation, the general site characteristics and dominant vegetation on the Project site were noted. Current federal and state policies, methods and guidelines were used to identify and delineate potential jurisdictional areas and are described in detail below.

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16 United States Geological Survey (USGS) 7.5-minute topographic quadrangle, accessed via Google Earth. January 2020

17 United States Department of Agriculture, Natural Resources Conservation Service. 2020. Soil Survey Ventura Area, California. Available at: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

18 United States Geological Survey. 1978. Hydrologic Unit Code Number https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View, accessed January 2020

19 United States Fish and Wildlife Service. 2020. National Wetland Inventory Data Mapper Available at: https://www.fws.gov/wetlands/Data/Mapper.html.

20 United States Department of Agriculture, Natural Resources Conservation Service. 2020. State Soils Data Access (SDA) Hydric Soils List: California. Available at https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1316619.html.

Non-Wetland Waters of the United States

The lateral limits of USACE jurisdiction (i.e., width) for non-wetland waters were determined by the presence of physical characteristics indicative of the OHWM. The OHWM was identified in accordance with the applicable Code of Federal Regulations (CFR) sections (33 CFR 328.3 and 33 CFR 328.4) and Regulatory Guidance Letter 05-05[21], as well as in reference to various relevant technical publications, including, but not limited to: Review of Ordinary High Water Mark Indicators for Delineating Arid Streams in the Southwestern United States[22], Distribution of Ordinary High Water Mark (OHWM) Indicators and Their Reliability in Identifying the Limits of "Waters of the United States" in Arid Southwestern Channels[23], and A Field Guide to Identification of the OHWM in the Arid West Region of the United States.[24] The regulations were also reviewed in the determination of non-jurisdictional features including ephemeral drainages, artificially irrigated areas and roadway ditches excavated in uplands.

Additionally, Rincon evaluated sources of water, potential connections, and distances to Traditional Navigable Waters (TNWs), streams that are perennial or intermittent in nature and other factors that affect whether waters qualify as WOTUS under the pre-2015 regulations and guidance. A more detailed regulatory definition of USACE jurisdiction can be found in **Appendix 3.3-I, Attachment B**.

Wetland Waters of the United States

Potential wetland features were evaluated for presence of wetland indicators; specifically, hydrophytic vegetation, hydric soils, and wetland hydrology, according to routine delineation procedures within the Wetlands Delineation Manual[25] and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.[26] The USACE Arid West 2018 Regional Wetland Plant List was used to

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21 United States Army Corps of Engineers. 2005. Regulatory Guidance Letter No. 05-05: Ordinary High-Water Mark Identification. U.S. Army Corps of Engineers. Washington, D.C.

22 United States Army Corps of Engineers. 2004. Review of Ordinary High-Water Mark Indicators for Delineating Arid Streams in the Southwest United States. Technical Report ERDC TR-04-1. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Hanover, New Hampshire.

23 United States Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). United States Army Corps of Engineers Research and Development Center. Vicksburg, MS. September.

24 United States Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water mark (OHWM) in the Arid West Region of the Western United States. Technical Report ERDC/CRREL TR-08-12. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Hanover, New Hampshire.

25 United States Army Corps of Engineers. Environmental Laboratory. 1987. Technical Report Y-97-1. In: United States Army Corps of Engineers Wetlands Delineation Manual. United States Army Corps of Engineers Waterways Experiment Station. Vicksburg, MS.

26 United States Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). United States Army Corps of Engineers Research and Development Center. Vicksburg, MS. September.

determine the wetland status of the examined vegetation by the following indicator status categories: Upland (UPL), Facultative Upland (FACU), Facultative (FAC), Facultative Wetland (FACW), and Obligate Wetland (OBL).[27] Representative sample points were sited in aeras most likely to exhibit wetland characteristics, i.e., a prevalence of hydrophytic vegetation and suitable landform, and examined in the field for potential wetland indicators. Sample points were not conducted in areas with an obvious prevalence of upland vegetation or in areas where the landform would not support wetland features, i.e., concrete channels and sloped areas. A more detailed regulatory definition of USACE jurisdiction can be found in **Appendix 3.3-I, Attachment B**.

Waters of the State

The limits of "waters of the State," as defined under the Porter-Cologne Water Quality Control Act, are any surface water or groundwater, including saline waters, within the boundaries of the state. In those areas where a OHWM was present, the OHWM was determined to represent the limits of waters of the State based on current interpretation of jurisdiction by the Los Angeles RWQCB. In those areas where an OHWM was not present, but surface water was present, i.e., roadside ditches that are hydrologically connected to tributaries and TNWs, the limits of waters of the State were determined to be bounded by the top of slope or top of "bank."

Potential State wetland features were evaluated pursuant to the State Water Resources Control Board's (SWRCB) State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2019). Potential state wetlands were evaluated following the SWRCB's definition, which relies on the same three parameters as the USACE definition (hydrophytic vegetation, wetland hydrology, and hydric soils) but allows for naturally unvegetated areas meeting the other two parameters to be considered wetlands. A more detailed regulatory definition of RWQCB jurisdiction can be found in **Appendix 3.3-I, Attachment B**.

CDFW Streambeds

The extent of potential streambeds, streambanks, lakes and riparian habitat subject to CDFW jurisdiction under Sections 1600 et seq. of the California Fish and Game Code was delineated by reviewing the topography and morphology of potentially jurisdictional features to determine the outer limit of riparian vegetation, where present, or the tops of banks for stream features. A more detailed regulatory definition of CDFW jurisdiction can be found in **Appendix 3.3-I, Attachment B**.

[27] Lichvar, R.W. et al. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1–17. Published 28 April 2016.

Ventura County

Potential redline channels were evaluated, specifically those channels that Ventura County has determined to convey about 500 cubic feet per second or more in a 100-year runoff event. A list of redline channels that were adopted in 1994 by the Ventura County Watershed Protection District were reviewed (Ventura County 2019). For the purposes of this report, the jurisdictional limits of redline channels were determined to be coterminous with USACE jurisdiction since Ventura County does not have guidance on extent of jurisdiction. A more detailed regulatory definition of Ventura County Watershed Protection District jurisdiction can be found in **Appendix 3.3-I, Attachment B**.

Data Collection and Processing

Data points representing the top of bank, OHWM, and other observation points were mapped using a Trimble R1 Global Positioning System (GPS) with sub-meter accuracy and were also plotted on aerial photographs. The data were subsequently transferred to Rincon's geographic information system (GIS) and used in combination with recent, high resolution aerial photographs and, topographic datasets to map the extent of streams in the study area. The delineation data were used to produce **Figure 3.3-3, Figure 3.3-4,** and **Figure 3.3-5, Potential Jurisdictional Areas within the Study Area**. Representative photographs of delineated features and surrounding conditions are presented in **Appendix 3.3-I, Attachment C**.

Field Results

Based upon the findings of Rincon's jurisdictional delineation, the intermittent storm drain channel Walnut Canyon Channel, one unnamed ephemeral drainage (Drainage 1), and one unnamed erosional feature (Erosional Feature 1) are present in the study area. These features are depicted on **Figures 3.3-3, 3.3-4,** and **3.3-5**.

Walnut Canyon Channel

The Walnut Canyon Channel is a rectangular concrete-lined drainage channel that extends along the southern edge of the study area. It is classified by the National Wetland Inventory (NWI)[28] as a R4SBCx drainage (riverine, intermittent streambed, seasonally flooded, excavated). Constructed in 1962 (Ventura Countywide Stormwater Quality Management Program 2021), the Walnut Canyon Channel is also considered a redline stream by the Ventura County Watershed Protection District (VCWPD). Stormwater and runoff flows from residential developments and a natural drainage enter Walnut Canyon Channel north of the study area. Within the study area, the drainage flows from east to west, paralleling Poindexter

[28] United States Fish and Wildlife Service. 2020. National Wetland Inventory Data Mapper Available at: https://www.fws.gov/wetlands/Data/Mapper.html

Avenue. West of the study area, the drain travels in a southwesterly direction, until it connects to Arroyo Las Posas approximately 2.5 miles southwest of the study area. Arroyo Las Posas converges with Calleguas Creek, which then flows south to Mugu Lagoon, and ultimately to the Pacific Ocean. Based on its position within the watershed, it appears likely that the feature was a natural drainage prior to its excavation and channelization. VCWPD is responsible for the on-going maintenance for flood control purposes of the Walnut Canyon Channel; there is an existing 25' easement in favor of VCWPD on Project Site, and additional records indicate that there is a 15' wide easement on the railroad property in favor of VCWPD (for a total easement corridor width of 40'). VCWPD also maintains an access road within their easement.

The Walnut Canyon Channel contains a distinct OHWM, bed, and banks, which were defined by the break in slope. The OHWM and top of bank measure eight feet wide, with the top of bank measuring five feet above the concrete-lined bed of the channel. Water was present in the drain during the May 26, 2021 survey, suggesting the feature transmits flows on an intermittent basis. The water appeared to be fed by runoff from the upstream residential developments. Walnut Canyon Channel is likely subject to regulations by the USACE and RWQCB under Sections 404 and 401 of the CWA, respectively, as well as CDFW pursuant to Section 1600 et seq. of the CFGC (refer to **Figure 3.3-3, Potential Jurisdictional Areas within the Study Area,** and **Figure 3.3-5, Potential Jurisdictional Areas within the Study Area with Site Plan Overlay**).

Unnamed Drainage 1

Drainage 1 is an ephemeral drainage that experiences surface flow during the winter/wet season and during storm events. It is classified by the NWI as a R4SBC drainage (riverine, intermittent streambed, seasonally flooded). Within the northern portion of the drainage, a clearly incised channel with steeply defined bed and banks was observed. An OHWM was discernible within Drainage 1, and was mapped based on the presence of shelving, sediment and debris deposits, and matted vegetation indicating ordinary hydrologic flows associated with rain events. As the feature flows downstream into lower elevations and gradient, defined banks become less incised and recognizable, though transport of sediment within the feature remained consistent throughout its length. Drainage 1 flows south and converges with the Walnut Canyon Channel.

The bed of the channel is largely unvegetated and consists of coarse sand. The banks of the channel are primarily vegetated by annual brome grassland, which is contiguous with the surrounding landscape in its vicinity. This community is dominated by non-native grasses and forbs, including ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), red brome (*Bromus madritensis*), slender oat (*Avena barbata*), fennel (*Foeniculum vulgare*), Italian thistle (*Carduus pycnocephalus*), tocalote (*Centaurea melitensis*), black mustard (*Brassica nigra*), red stem filaree (*Erodium cicutarium*), horehound (*Marrubium vulgare*), and turkey mullein (*Croton setiger*). Within the northern portion of the drainage, it is vegetated by non-native woodland

dominated by blue gum eucalyptus (*Eucalyptus globulus*), with an herbaceous layer of annual brome grassland. As the drainage flows south, it parallels a windrow of Peruvian pepper trees (*Schinus molle*), with an herbaceous layer of annual brome grassland.

Soft chess and horehound are ranked as FACU species, and red brome is ranked as an UPL species.[29][30] The remaining dominant plant species within the annual brome grassland observed along the banks of the drainage do not have a wetland indicator status. Based on the dominance of upland plant species throughout the drainage and the soils consisting of coarse sand, Drainage 1 is not considered a wetland.

Under the pre-2015 regulations and guidance, ephemeral features are within USACE jurisdiction if they possess a significant nexus to a TNW. Based on the hydrologic connectivity of Drainage 1 to Calleguas Creek, a TNW, it is expected that Drainage 1 is subject to USACE, RWQCB and CDFW jurisdiction (refer to **Figure 3.3-4, Potential Jurisdictional Areas within the Study Area, Drainage 1 and Figure 3.3-5, Potential Jurisdictional Areas within the Study Area with Site Plan Overlay**).

Erosional Feature 1 (Non-jurisdictional)

Erosional Feature 1 originates at the northern boundary of the property, near the southern terminus of Meridian Hills Drive, which is situated directly north of the property boundary. It is not mapped by the NWI.[31] The feature originates at a culvert outfall, and travels in a southerly direction into the study area. Erosional Feature 1 is very steeply incised in the north, but quickly becomes less defined as the surrounding topography becomes less steep and abates into the landscape after approximately 500 feet. No indicators of hydrophytic vegetation or hydric soils were evident. The erosional feature may briefly convey flow from upland areas during storm events over a short period of time, but it does not exhibit a defined bed, bank, channel, or OHWM indicative of a jurisdictional drainage feature. Review of historical aerial photographs confirms that the feature was not present prior to 2005, when Meridian Hills Drive was constructed. Therefore, Erosional Feature 1 is not expected to be subject to USACE, RWQCB, and CDFW jurisdictions.

Summary of Jurisdictional Areas and Wetland Classification

Potentially jurisdictional areas within the study area are identified below in **Table 3.3-5, USACE, RWQCB, and CDFW Jurisdictional Areas**, and shown on **Figures 3.3-3** through **3.3-5**.

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[29] Lichvar, R.W. et al. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1–17. Published 28 April 2016.

[30] United States Army Corps of Engineers. 2017. National Wetland Plant List. Website. Available at: http://rsgisias.crrel.usace.army.mil/NWPL/

[31] United States Fish and Wildlife Service. 2020. National Wetland Inventory Data Mapper Available at: https://www.fws.gov/wetlands/Data/Mapper.html

Table 3.3-5
USACE, RWQCB, and CDFW Jurisdictional Areas

Waters of the U.S.[1]				
Feature	**Non-wetland Waters of the U.S. (acres/linear feet)**	**Wetland Waters of the U.S. (acres/linear feet)**	**Waters of the State (acres/linear feet)**	**CDFW Jurisdictional Streambed[2] (acres/linear feet)**
Walnut Canyon Channel	1.02 acre / 4,996 feet	--/--	1.02 acre / 4,996 feet	1.02 acre / 4,996 feet
Unnamed Drainage 1	0.30 acre / 1,755 feet	--/--	0.30 acre / 1,755 feet	1.06 acre / 1,755 feet
Erosion Feature 1	--/--	--/--	--/--	--/--
Totals	**1.32 acre / 6,751 feet**	**--/--**	**1.32 acre / 6,751 feet**	**2.08 acre / 6,751 feet**

[1] Calculated to OHWM

[2] Calculated to top of bank

Source: Rincon Consultants, Inc., June 2021

As discussed in above and summarized below in **Table 3.3-6, Data Summary by Waters Feature, Routine Wetland Determination,** no wetlands have been identified on the Project site.

Table 3.3-6
Data Summary by Waters Feature
Routine Wetland Determination[1]

Aquatic Resource	Area	Cowardin Class[2]	Wetland Indicator Summary
Walnut Canyon Channel	1.02 acre / 4,996 feet	Riverine intermittent streambed, seasonally flooded, excavated (R4SBCx)	• Hydrophytic vegetation absent • No hydric soils • Hydrology[3] (A1, B1)
Unnamed Drainage 1	0.30 acre / 1,755 feet	Riverine intermittent streambed, seasonally flooded (R4SBC)	• Hydrophytic vegetation absent • No hydric soils • Hydrology[3] (B2, B3, B10)

1 USACE Wetland Delineation Manual, January 1987, https://usace.contentdm.oclc.org/digital/collection/p266001coll1/id/4532/

2 https://www.fws.gov/wetlands/documents/classification-of-wetlands-and-deepwater-habitats-of-the-united-states.pdf

3 Wetland hydrology indicators, https://www.sas.usace.army.mil/Portals/61/docs/regulatory/Workshop_Hydrology_Fall2011.pdf

A1 – Surface Water

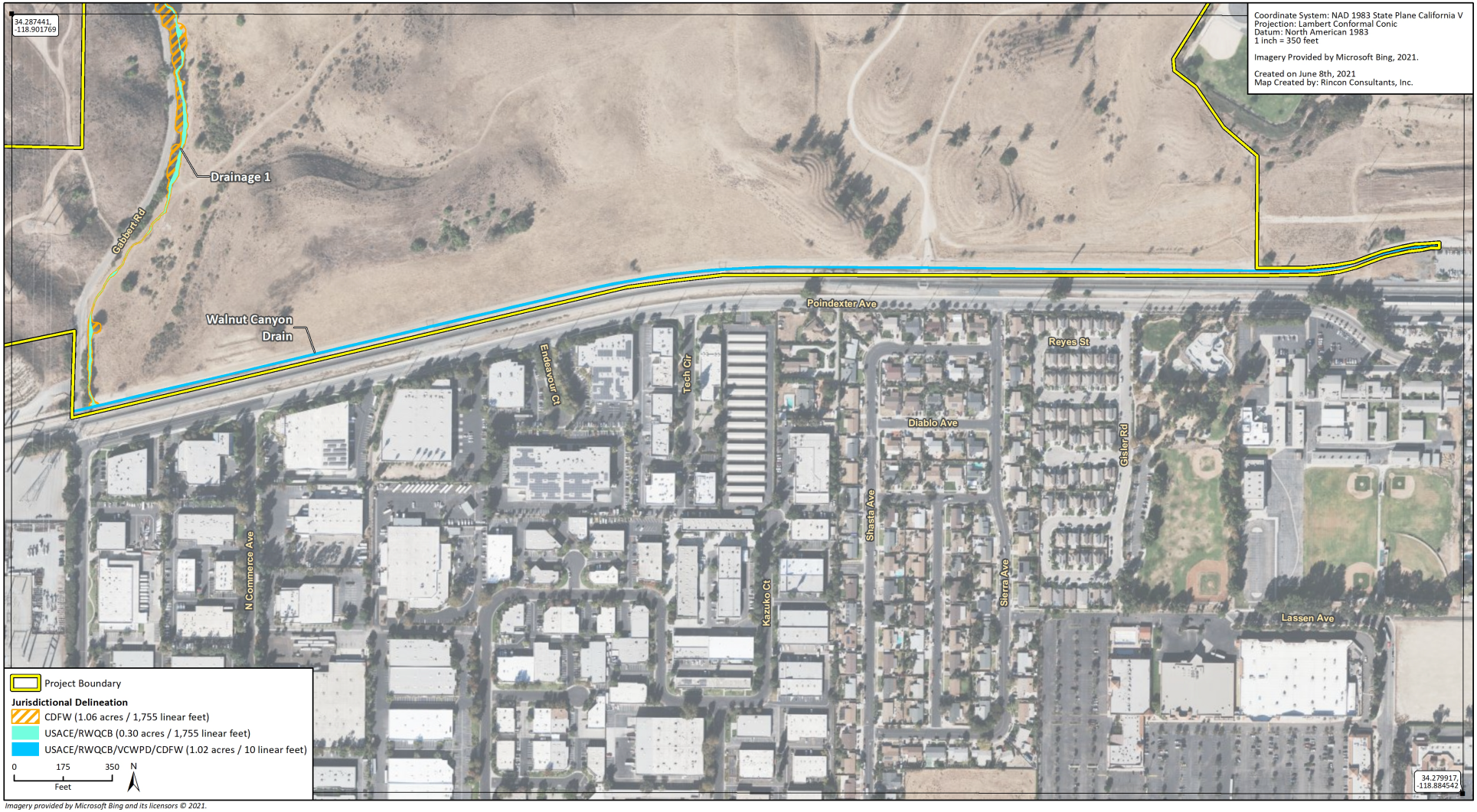
B1 -Water Marks

B2 – Sediment Deposits

B3 – Drift Deposits

B10 – Drainage Patterns

Source: Rincon Consultants, Inc., June 2021

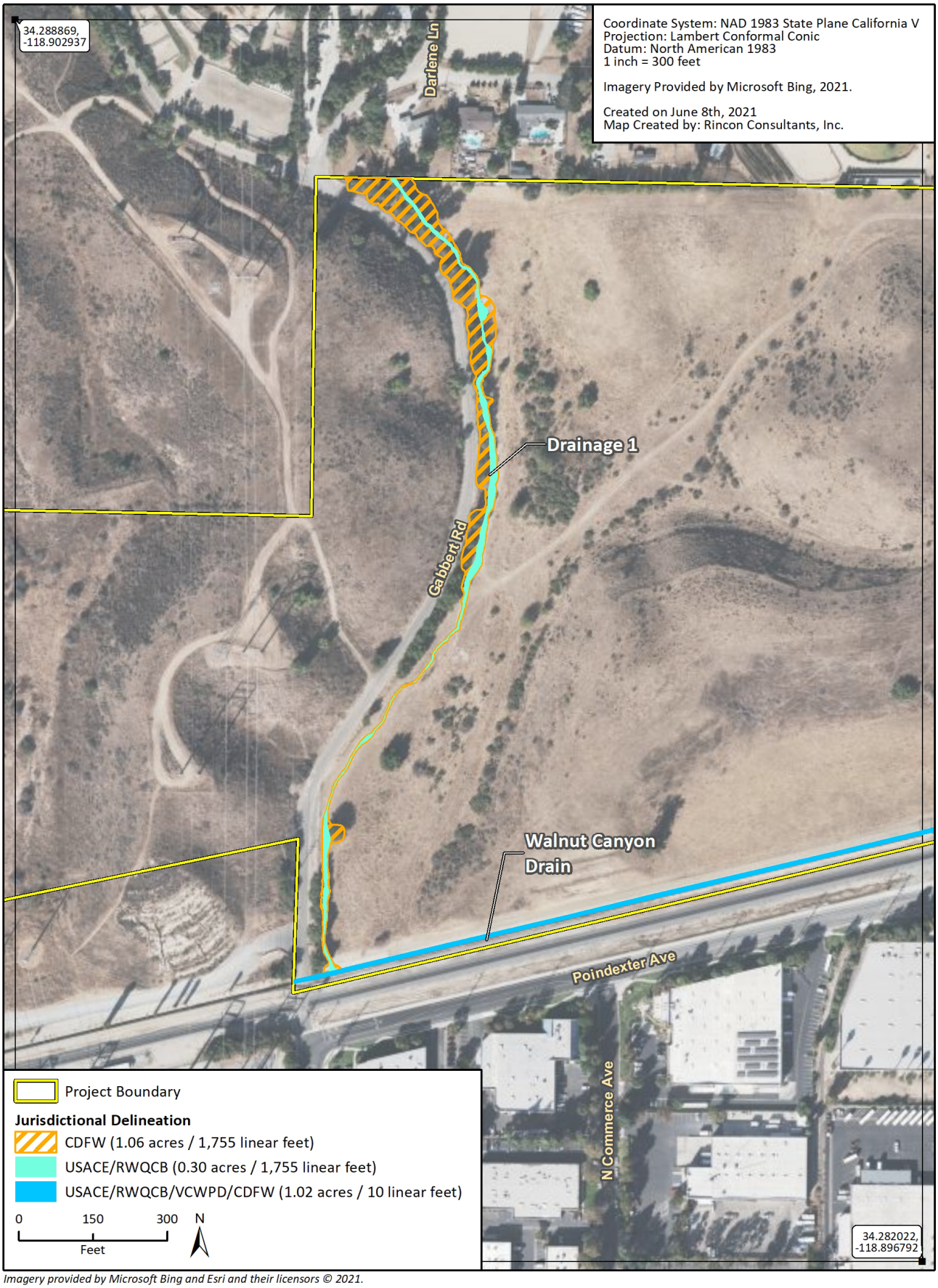


SOURCE: Rincon Consulting, November 2021.

FIGURE **3.3-3**

IMPACT SCIENCES

Potential Jurisdictional Areas within the Study Area - Walnut Canyon Drain



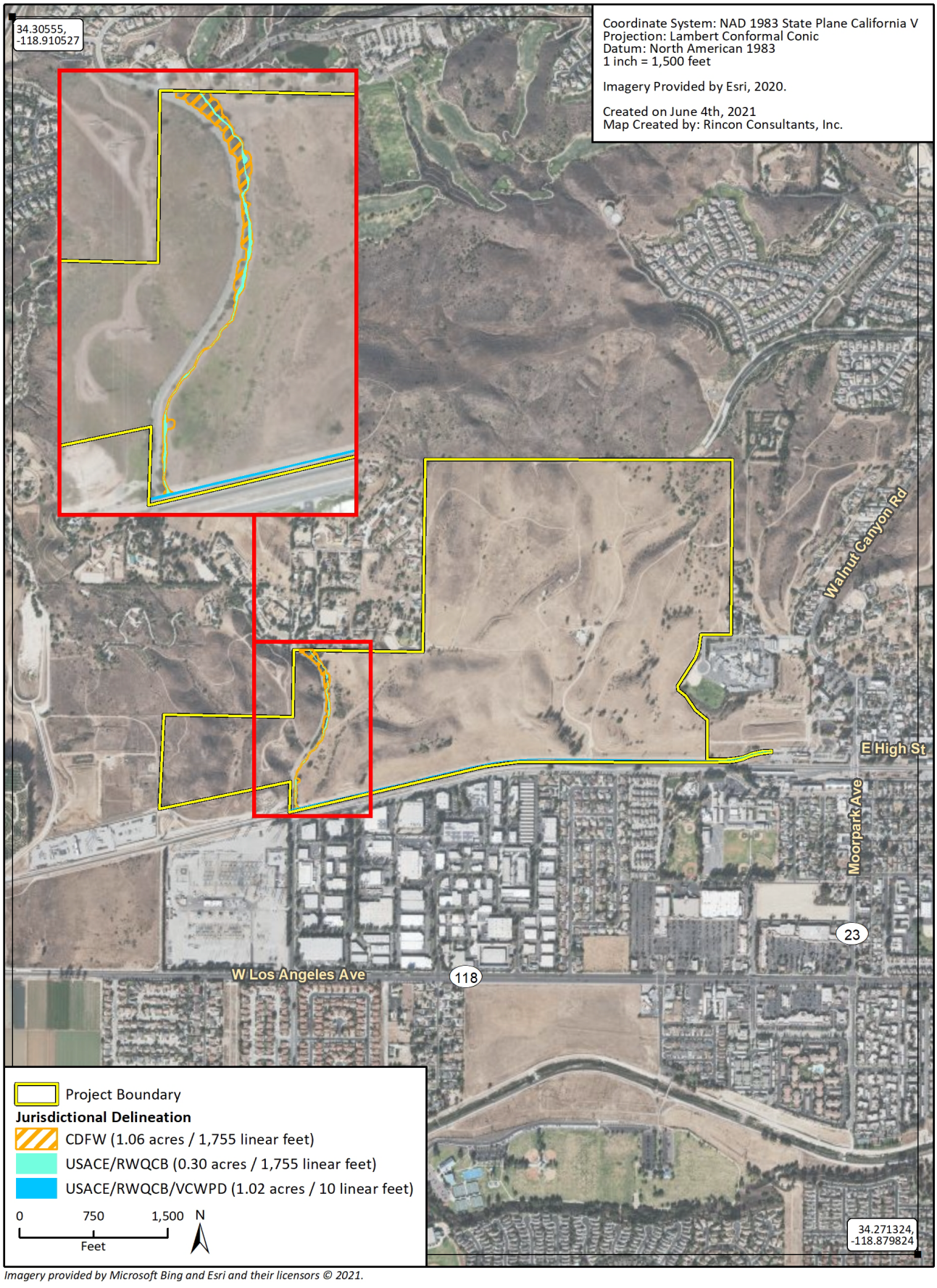
Imagery provided by Microsoft Bing and Esri and their licensors © 2021.

SOURCE: Rincon Consulting, November 2021.

FIGURE **3.3-4**

IMPACT SCIENCES

Potential Jurisdictional Areas within the Study Area - Drainage 1



Imagery provided by Microsoft Bing and Esri and their licensors © 2021.

SOURCE: Rincon Consulting, November 2021.

FIGURE **3.3-5**

IMPACT SCIENCES

Potential Jurisdictional Areas within the Study Area with Project Site Overlay

1318.004•11/2021

3.3.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of the *State CEQA Guidelines* contains the Initial Study Environmental Checklist form that includes questions relating to biological resources. The criteria presented in the Initial Study Checklist have been used as thresholds of significance to assess the project's impacts to biological resources. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- The project has 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 CDFW or USFWS.

- The project has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations of the CDFW or USFWS.

- The project has a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, *etc.*) through direct removal, filling, hydrological interruption, or other means.

- The project interferes substantially with the movement of any native or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.

- The project conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- The project conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

In addition to the above criteria, *State CEQA Guidelines* Section 15065(a), Mandatory Findings of Significance, states that a project may have a significant effect on the environment if "… the project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species …" These mandatory findings of significance are considered in assessing the project's impacts on biological resources.

The following is an evaluation of whether proposed impacts to biological resources are significant, considering how each resource is important in a regional or local context. "Significant" impacts are those that would substantially diminish, or result in the loss of, an important biological resource or those impacts

that would conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally adverse, but not significant, because, although they would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population or regional level.

State CEQA Guidelines Section 15380 states that a lead agency shall consider a non-listed species to be rare or endangered for the purposes of CEQA, if the species can be determined to meet the applicable criteria established in the section. For the purposes of this impact analysis, the current scientific knowledge on the population size and distribution for each special-status species was considered, as instructed in the *State CEQA Guidelines* Section 15380.

3.3.5 PROJECT IMPACTS

3.3.5.1 Direct Impacts

Impact Bio-1 **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.**

Less than Significant with Mitigation

Summary of Biological Resource Values

Based on an evaluation using the criteria described below, on-site plant communities were assigned one of three biological values: low, moderate, or high. To assess the quality of the biological resources present within the Project site boundaries, the habitats on site were compared to habitats in open space in the vicinity or region. Four criteria were employed to complete this assessment: disturbance history (undisturbed sites rated higher than disturbed sites), parcel size (larger parcels tend to support greater numbers of species and populations than smaller sites), surrounding environment (higher values when the surrounding environment has a buffering influence rather than a disturbing influence), and presence of sensitive resources (a higher value is placed on the support of a sensitive resource because the sensitive resource would likely not occur if environment has been significantly altered in a negative way).

Disturbance History

The Project site was subject to nearly complete disturbance by row crop farming operations until the mid-1980s. The site was graded into terraces for orchards in areas, and disked repeatedly for hay or other crops in other areas. Livestock grazing has also occurred on the site. The result of these disturbances is the

nearly complete conversion of the natural vegetation into non-native associations of ruderal species. These plant associations have limited biological resource value, compared to undisturbed, high-quality native associations. The majority of the Project site burned in both the 2003 and 2006 brush fires, diminishing the small quantity of mature coastal sage scrub habitat that was present on the site. Some of this vegetation community has regrown, but includes numerous invasive species in the understory.

Parcel Size and Surrounding Environment

The Project site totals approximately 277.30 acres, constituting a relatively large parcel of undeveloped land in the City of Moorpark. As stated previously, the site is surrounded on each of its sides by some development. Development to the south is very dense, and adjacent lands to the east and west are mixed rural residential, institutional, open space, and agriculture. A residential development is currently under construction to the northeast of the Project site.

A parcel of this size in a natural state and surrounded by other natural open space areas would have a high biological resource value. However, because the proposed Project site supports mostly non-native vegetation on disturbed lands and is bordered by development on all sides, its biological resource value with respect to the parcel size criterion is low.

Presence of Special-Status Resources

The special-status plant community present on the site is the locally important California sagebrush-deerweed, which is included in the coastal sage scrub community. Mature trees that occur within the non-native woodland and other areas of the site are protected under City of Moorpark ordinance. Seven bird species and one mammal species considered special-status were recorded on the site during past and present biological surveys. These were observed in low numbers and usually outside of any identified sensitive period of their life histories, as identified by CDFW[32] or when seen during nesting season, a nest was not identified. Due to the disturbed nature of the site, few special-status plants and animals are expected to rely on the site in the future as an important part of their home range. With the exception of providing open foraging habitat for raptors, habitat quality for other sensitive species is low.

Biological Resource Values

The analysis of impacts to biological resources focuses on the following actions or activities associated with project implementation:

32 California Department of Fish and Wildlife. 2017. Special Animals List.

- permanent impacts associated with clearing and grading activities; and
- permanent construction of suburban lots, industrial, and institutional buildings, flood control facilities, detention basins, recreational areas, roads (including the North Hills Parkway extension stub west of Gabbert Road), parks, and other facilities and structures associated with the proposed project.

Since plants and wildlife are dependent upon the condition, extent, and character of specific ecosystems and habitat types, impacts to these resources are generally discussed in terms of the effect of project-related activities on natural habitat areas (*i.e.*, on plant communities). However, direct impacts with respect to specific plant and wildlife resources (*e.g.*, active nests, dens, and individual plants and animals) are also evaluated and discussed when impacts to these resources, in and of themselves, could be considered significant or conflict with local, state, and federal laws or regulations.

Plant and Vegetation Types

The evaluation of on-site plant communities according to the criteria described above are summarized in **Table 3.3-7, Biological Resource Values of Plant Communities—Hitch Ranch Property**. Annual brome grassland and non-vegetated areas (i.e., developed and disturbed/disced) are considered to have a low biological resource value. Although substantially disturbed by ongoing cattle grazing, the following plant communities have a moderate biological value for supporting wildlife: California sagebrush-deerweed, blue elderberry scrub, cactus scrub, and chaparral yucca scrub, and non-native woodland areas provide suitable habitat for nesting birds.

Table 3.3-7
Biological Resource Values of Plant Communities
Hitch Ranch Property

Plant Community	Relative Biological Value
Annual brome grassland	Low
Annual brome grasslands (Disturbed/Grazed)	Low
Total annual brome grassland	**Low**
Non-native woodland	**Low**
Blue Elderberry Stands	Moderate
Blue Elderberry Stands (Disturbed/Grazed)	Low
Total blue elderberry stands	**Low-Moderate**
California sagebrush-deerweed scrub	High
California sagebrush-deerweed scrub (Disturbed/Grazed)	Low-Moderate
Total California sagebrush-deerweed scrub	**Moderate**
Cactus Scrub (Disturbed/Grazed)	**Moderate**
Chaparral yucca scrub (Disturbed/Grazed)	**Moderate**
Developed	**Low**
Disturbed/Disced	**Low**

Source: Rincon Consultants, Inc., July 2021

The direct impact of implementation of the proposed project converts approximately 79 percent of the vegetated area on the site (including disturbed/disced areas) from an undeveloped to a developed condition, as a result of brush clearance, grading, and construction. Analysis of direct impacts assumes a maximum buildout scenario, as proposed for this project. Areas of each plant community expected to be disturbed on the site as a result of the project are provided in **Table 3.3-8, Natural Plant Communities Impacted by Project Implementation**. Impacts to each of these plant communities are described in the following paragraphs.

Table 3.3-8
Natural Plant Communities Impacted by Project Implementation

Plant Community	Relative Biological Value	Total Acres* Present	Acres* Disturbed	Acres* Remaining On Site
Annual brome grassland	Low	1.35	0.00	1.35
Annual brome grasslands (Disturbed/Grazed)	Low	152.45	131.88	0.00
Total annual brome grassland	**Low**	**153.80**	**131.88**	**20.57**
Non-native woodland	**Low**	**10.65**	**9.76**	**0.88**
Blue Elderberry Stands	Moderate	1.62	0.00	1.62
Blue Elderberry Stands (Disturbed/Grazed)	Low	5.38	5.29	0.09
Total blue elderberry stands	**Low-Moderate**	**7.00**	**5.29**	**1.71**
California sagebrush-deerweed scrub	High	26.21	2.36	23.85
California sagebrush-deerweed scrub (Disturbed/Grazed)	Moderate	12.92	12.19	0.73
Total California sagebrush-deerweed scrub	**Moderate-High**	**39.13**	**14.55**	**24.58**
Cactus Scrub (Disturbed/Grazed)	**Moderate**	**1.76**	**0.08**	**1.68**
Chaparral yucca scrub (Disturbed/Grazed)	**Moderate**	**0.43**	**0.00**	**0.43**
Developed	**Low**	**1.44**	**1.44**	**0.00**
Disturbed/Disced	**Low**	**70.53**	**63.16**	**7.37**

** Acreages include the Project site and off-site improvement areas*

Source: Rincon Consultants, Inc., July 2021

Annual Brome Grassland

Implementation of the proposed project would result in the direct loss of 131.88 acres (85.7 percent) of non-native annual brome grassland communities on site, including annual brome grassland and annual brome grassland that is disturbed by cattle grazing. These communities are not known to support rare, threatened, or endangered plant or animal species on the site. Annual brome grassland communities can provide foraging habitat for several raptor species, and breeding habitat for some small mammal species.

A migratory individual of loggerhead shrike was observed within annual brome grassland vegetation in July 2011; however, due to the presence of additional annual brome grasslands in the vicinity of the site,

the loss of these annual brome grassland habitat areas is not considered a substantial loss of nesting or foraging habitat for birds. As a result of the severely disturbed nature of the grassland on the site and the dominant presence of non-native species, the grassland vegetation on the site has relatively low botanical value. Any special-status plant species occurring in these areas are expected to occur in low numbers due to the high level of disturbance of this habitat. The project-associated loss of annual brome grassland with relatively low botanical value is not expected to substantially affect special-status resources or cause a population of plant or animal species to drop below self-sustaining levels. Therefore, the overall loss of annual brome grassland habitat on the site is not a significant impact.

Blue Elderberry Stands

Development of proposed land uses would eliminate 5.29 acres (98 percent) of the disturbed/grazed blue elderberry stand habitat on site, which is substantially disturbed by active cattle grazing and considered to be of low habitat value. The 1.62 acres of moderate value blue elderberry habitat on site will be entirely avoided. No rare, threatened, or endangered plant or animal species was observed or is expected to occur in this habitat on the site. Although most of this habitat east of Gabbert Road will be lost with development of the site, grazing pressures have substantially disturbed this habitat on site resulting in low biological diversity. Project site. Yellow-breasted chat and loggerhead shrike, both California Species of Special Concern, were observed within this community (identified as mulefat vegetation in the 2019 Biological Survey Update, Barringer Biological Services, April 2019). Yellow-breasted chat during the 1998 bird surveys and loggerhead shrike during both 1998 bird surveys and January 2007 site visit. The observed individuals were most likely transients and are not expected to nest on the site. The blue elderberry stands on the western part of the Project site, west of Gabbert Road, is moderate in biological value due to the high coverage of non-native plants surrounding and intermixing and the small size of this plant community, and the portions of this community within the Project site east of Gabbert Road is low in biological value for the same reasons, and also because these areas are highly disturbed by cattle grazing. The loss of 5.29 acres east of Gabbert Road would represent a potentially significant impact, although the avoidance and availability of higher-quality habitat west of Gabbert Road and in the site vicinity (northeast of the Project site and adjacent developments) will help offset this impact. Additionally, implementation of **Mitigation Measure BR-6** would mitigate this impact to a less than significant level.

California Sagebrush-Deerweed Scrub

Implementation of the project would result in the direct loss of 14.55 acres (37.2 percent) of the California sagebrush-deerweed scrub community on site, 12.19 acres of which is substantially disturbed by active cattle grazing. The California sagebrush-deerweed community found on the Project site provides habitat for a variety of plant and animal species and is part of the coastal sage scrub habitat considered sensitive

in California. Southern California rufous-crowned sparrow and loggerhead shrike, both special-status species, were observed in California sagebrush-deerweed community during the spring 1998 field surveys; loggerhead shrike was again observed during the January 2007 site visit and Southern California rufous-crowned sparrow was detected onsite during coastal California gnatcatcher surveys in 2021. Coastal California gnatcatcher, a federally listed threatened species, were observed during protocol surveys in 2021 foraging within the portions of this community that are disturbed by cattle grazing. Plummer's mariposa lily, a federal Species of Concern, has a moderate potential of occurring within the California sagebrush-deerweed scrub community.

Even with the occasional presence of special-status wildlife species observed over several years, the overall wildlife habitat value of the fragmented patches of disturbed California sagebrush-deerweed scrub community on the project area portion to be developed is considered low to moderate in biological value. The permanent loss of 37.2 percent of the on-site California sagebrush-deerweed represents a loss of habitat that has been used by special-status species. Therefore, the permanent loss of 14.55 acres of this California sagebrush-deerweed community represents a potentially significant impact. Implementation of **Mitigation Measure BR-6** would mitigate this impact to a less than significant level.

Cactus Scrub

Vegetation disturbance of cactus scrub would consist of 0.08 acre of the total 1.76 acre (4.5 percent) of this community on site. Cactus wren were detected foraging within the on-site cactus scrub community during the coastal California gnatcatcher surveys conducted in 2021. Cactus wren are not expected to nest within the portion of this community that is on site due to its disturbed condition from cattle grazing; however, are likely nesting within the undisturbed cactus scrub that is present offsite to the north within the undisturbed open space. The cactus scrub on-site is moderate in biological value due to the high coverage of non-native plants surrounding and intermixing and the small size of this plant community. Because of the sensitive status of this habitat, the loss of 1.76 acres would represent a potentially significant impact. Implementation of **Mitigation Measure BR-6** would mitigate this impact to a less than significant level.

Chaparral Yucca Scrub

There is 0.43-acre of Chaparral Yucca Scrub community on the Project site, none of which would be impacted by the proposed project.

Non-native Woodland

Implementation of the project would result in the direct loss of 9.76 acres (91.6 percent) of the non-native woodland community on site, all of which is substantially disturbed by active cattle grazing. Additionally,

this community is dominated with non-native Peruvian pepper trees; therefore, impacts to this community would be less than significant.

Wildlife

In addition to the loss of wildlife habitat, construction activity and operation of the proposed project would directly disturb wildlife that use the Project site and lands immediately adjacent to it. Some species are expected to be displaced to adjacent areas of similar habitat, provided such habitat is available at the onset of construction activity. However, wildlife able to leave from the site would be vulnerable to predation and unsuccessful competition for food and territory. Within the project footprint, species of low mobility (particularly young, burrowing mammals and reptiles) would be lost during site preparation.

Much of the proposed development area consists of habitat disturbed by past ranching activities including grazing and agriculture. The relatively common nature of most of the wildlife that would be displaced or eliminated by construction activities indicates that project implementation is not expected to cause an existing wildlife population on or adjacent to the Project site to drop below self-sustaining levels. Therefore, no significant impacts on common wildlife species are expected to occur.

Bird nests with eggs or young are protected under the Migratory Bird Treaty Act and the *California Fish and Game Code*. The loss of an active nest as a result of construction or other site-preparation activities would be a violation of these laws. In addition, depending on the total number of native birds nesting on the site prior to construction, the loss of active nests could substantially affect on-site bird populations. This would be a potentially significant impact. However, with the implementation of **Mitigation Measure BR-9**, impacts would be mitigated to a less than significant level.

Special-Status Biological Species

The following impact analysis focuses on special-status plant and wildlife species actually observed on the site and those with potential to occur there. The remaining special-status plant and wildlife species addressed in **Tables 3.3-2** and **3.3-4** are either not expected to occur, based on habitat and range unsuitability, or are presumed absent due to negative survey results.

Special-Status Plants

Nine individuals of the special-status plant, Southern California black walnut, were previously observed on the site; however, the most recent Tree Survey performed by LNDG in December 2019 (LNDG, August 2020) observed 6 Southern California black walnuts on the Project site. No other special-status plants were observed during the focused plant surveys.

Round-leaved filaree (*California macrophylla*, CNPS List 1B.2), white rabbit-tobacco (*Pseudognaphalium leucocephalum*, CNPS List 2B.2), Plummer's mariposa lily (*Calochortus plummerae*, CNPSA List 4.2) — Suitable habitat is present on site for each of these species, and they are therefore considered to have a low potential to be present. Nonetheless, the lack of observation of these species during surveys conducted from 1993 to 2016 renders the likelihood that they are present on site so low as to be presumed absent, and project impacts to these species are therefore not expected.

Project site clearing and grading would result in the loss of up 267 mature trees. The loss of these trees would be in conflict with the City of Moorpark mature tree preservation ordinance. A Tree Survey, including a valuation of the existing trees, has been conducted and permits to remove any mature trees on-site shall be obtained from the City of Moorpark prior to project construction. Since this loss would conflict with this adopted policy and diminish wildlife habitat for some common species, the loss of mature trees on the site would be a potentially significant impact. However, the City's standard Conditions of Approval, provided in **Section 3.1, Aesthetics**, require the submission of landscaping plans for review and approval by the Community Development Director. The landscape plans for the development include the planting of street trees, trees to identify and enhance project and neighborhood entries, and trees in all of the proposed park areas. Implementation of the project landscape plans would increase the tree canopy on the Project site, and impacts would be less than significant. Implementation of **Mitigation Measure BR-10** would further reduce this impact.

Special-Status Wildlife

Western spadefoot, coastal western whiptail, coast horned lizard, coast patch-nose snake — None of these amphibian and reptile species have been observed on the Project site, but each may potentially occur. Suitable habitat for western spadefoot may be present in low-lying areas subject to ponding; however, no evidence of ponding (*e.g.*, shrink-swell soils) was noted on site in May 2009 or June 2011. Suitable habitat for coastal whiptail, coast horned lizard, and coast patch-nose snake is present over much of the site in grassland and California sagebrush-deerweed vegetation on site. If any of these species are present on the site, clearing and grading would be a significant impact to these species, as they are not able to escape as easily as the birds or mammals. Implementation of **Mitigation Measure BR-1**, which requires preconstruction surveys for and relocation of these special-status amphibian and reptiles would mitigate this impact to less than significant.

White-tailed kite and Cooper's hawk — These special-status raptor species were observed foraging over the site during multiple field surveys. Since no nests were observed and the typical nesting habitat of these species—dense oak or riparian woodlands—is not present on the site, nesting by either species is not expected. During construction and site-preparation activities, any individuals of these species occurring

within or adjacent to habitat proposed for development on the site are expected to be displaced to remaining suitable habitat areas in the project vicinity. Due to the general availability of suitable foraging habitat for these species in unincorporated open space areas adjacent to the City of Moorpark, the loss of suitable foraging habitat on the site is not considered a significant impact to these species. However, should either of these species be found nesting on the site or immediately adjacent to the site, direct loss of active nests, including eggs, young, or nesting adults, could result if construction and site-preparation activities are conducted during these species' nesting season (generally March through August). Potential loss during critical life stages would be a potentially significant impact. Implementation of **Mitigation Measure BR-9** would mitigate this impact to a less than significant level.

Southern California rufous-crowned sparrow, loggerhead shrike, grasshopper sparrow, Costa's hummingbird, Allen's hummingbird — Individuals of southern California rufous-crowned sparrow and loggerhead shrike were observed during the biological field surveys; despite not being observed during surveys, suitable nesting and foraging habitat for grasshopper sparrow, Costa's hummingbird, and Allen's hummingbird is present on site. During construction and site-preparation activities, individuals of these species occurring within or adjacent to habitat proposed for conversion are expected to be displaced to suitable habitat areas in the project vicinity. However, should either of these species be nesting on the site, a direct loss of active nests, including eggs, young, or nesting adults, could result if construction and site preparation activities are conducted during these species' nesting season (March through August). This loss would be a potentially significant impact. Implementation of **Mitigation Measure BR-9** would mitigate this impact to a less than significant level.

Yellow-breasted chat — A single yellow-breasted chat was observed in the patch of mulefat habitat on site. This species requires riparian thickets of willow and other brushy tangles in dense riparian woodland near water courses for cover and nesting.[33] Since suitable nesting habitat does not occur on the Project site or in the immediate vicinity, this recorded occurrence was most likely a transient bird. As such, it is not expected that this species would nest on the Project site or be substantially affected by project implementation; therefore, the construction of the project is not to be a significant impact to this species.

Sharp-shinned hawk, ferruginous hawk, northern harrier, and prairie falcon — These special-status raptor species were not observed during field surveys; however, they have a high potential of foraging on the site. In addition, there is marginally suitable nesting habitat for northern harrier. During construction and site-preparation activities, individuals of these species occurring within or adjacent to habitat proposed for conversion are expected to be displaced to suitable habitat areas in the project vicinity. Due to the

33 Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California's Wildlife*. Vol. I-III. California Department of Fish and Game, Sacramento, California.

general availability of suitable foraging habitat for these species in the unincorporated open space areas adjacent to the City of Moorpark, the loss of suitable foraging habitat on the site is not considered a significant impact to these species. However, should the northern harrier be found nesting on the site, direct loss of active nests, including eggs, young, or nesting adults, could result if construction and site preparation activities are conducted during these species' nesting season (generally March through August). This loss would be a potentially significant impact. Implementation of **Mitigation Measure BR-9** would mitigate this impact to a less than significant level.

Bell's sage sparrow — This special-status species was not observed on site during field surveys, but it has a high potential for occurrence. As its name implies, Bell's sage sparrow often occurs in sage scrub habitat. However, it most commonly breeds in fairly dense chaparral and desert scrub habitats.[34] These habitats do not occur on the Project site. The sage scrub habitat on site is marginal for the seasonal occurrence of this species, as Bell's sage sparrows tend to select denser stands of scrub habitat than is present on site. If present during site preparation or construction activities, individuals of these species are expected to be displaced to more suitable habitat in the project vicinity. Even though the site is marginally suitable for this species, should Bell's sage sparrows be found nesting on the site, a direct loss of active nests, including eggs, young, or nesting adults, could result if construction and site preparation activities are conducted during the species' nesting season (March through August). This loss would be considered a potentially significant impact. Implementation of **Mitigation Measure BR-9** would mitigate this impact to a less than significant level.

California horned lark — Although this species was not detected during the field surveys, suitable habitat is present on site within the grassland and scrub communities. During construction and site preparation activities, individuals of this species occurring within or adjacent to habitat proposed for conversion are expected to be displaced to suitable habitat areas in the project vicinity. However, should California horned lark be found nesting on site, a direct loss of active nests, including eggs, young, or nesting adults, could result if construction and site-preparation activities are conducted during the species' nesting season (March through July). This loss would be considered a potentially significant impact. Implementation of **Mitigation Measure BR-9** would mitigate this impact to a less than significant level.

Burrowing owl — Burrowing owls occupy open, dry grassland and desert habitats throughout California, or scrublands characterized by low-growing, widely spaced vegetation. They are dependent upon burrowing mammals for prey and also as a source for burrows, especially California ground squirrel. Previous (pre-2009) survey results indicated that vegetation on site was generally too dense and tall to be

34 Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California's Wildlife*. Vol. I-III. California Department of Fish and Game, Sacramento, California.

appropriate for this species. However, the annual nature of much of the vegetation on site predisposes it to seasonal and yearly variation in density and stature, and annual vegetation in 2009 and 2011 was low-growing (less than 12-inches) in many areas of the site. Furthermore, ground squirrels and their burrows were abundant in 2009 and 2011. Although no evidence of owl use was noted in 2009, 2011, or 2018, it is possible that they may occasionally utilize the site. The loss of individuals of this species from the subject property would be a potential violation of CEQA and the Fish and Game Code. Implementation of **Mitigation Measure BR-2** would mitigate this impact to a less than significant level.

Coastal California gnatcatcher – Surveys conducted over several years detected one likely dispersing individual CAGN in 2000 and CAGN were observed foraging within the disturbed coastal sagebrush-deerweed scrub community on the Project site in 2021. Frequent fires within Hitch Ranch have changed the scrubland habitat, reducing its wildlife value for several years following each burn. Since good rain years in winter 2017-18 and 2018-19, many scrub habitats had been recovering. However, severe drought conditions have since persisted through 2021, limiting regeneration and natural recruitment, and the Easy Fire in October 2019 burned known suitable and occupied CAGN habitat to the east of the Project site.

Informal consultation with USFWS Ventura Field Office resulted in their recommendation to conduct protocol CAGN surveys again prior to the commencement of construction activities in the potentially suitable habitat. USFWS protocol surveys were conducted in 2021 that revealed high quality CAGN habitat and breeding territories in the undisturbed coastal scrub habitat offsite to the north of the Project site and individuals were detected foraging within the disturbed coastal sagebrush-deerweed scrub habitat on the Project site. The individuals observed, or otherwise detected by vocalizations, had disbursed from breeding territories to the north (of the Project site) and were foraging within the disturbed coastal sagebrush-deerweed scrub on the site. No nests or breeding territories were observed on the Project site, and none are expected to occur on the eastside of Gabbert Road due to the sparse distribution and stunting of the sagebrush vegetation. Although no CAGN were detected to the west of Gabbert Road, the undisturbed sagebrush scrub vegetation in this portion of the Project site provides suitable foraging and nesting habitat for CAGN.

Construction activities that disturb or harm CAGN would be a violation of the FESA and would be a potentially significant impact. Implementation of **Mitigation Measure BR-5** would mitigate this impact to less than significant. If CAGN are detected, formal consultation with USFWS under Section 7 of the FESA would need to occur.

Implementation of **Mitigation Measure BR-5** requires formal consultation with USFWS in accordance with FESA prior to issuance of a grading permit or initiation of ground disturbing activities, whichever occurs first. Additionally, **Mitigation Measure BR-6** would mitigate impacts to suitable habitat through

compensatory mitigation consisting of on-site restoration of suitable habitat. Impacts would be less than significant level following implementation of these mitigation measures.

San Diego black-tailed jackrabbit — One San Diego black-tailed jackrabbit was observed on site during the 1993 site survey. No jackrabbits were observed during the 1998 or subsequent surveys, indicating that the level of disturbance to habitat on site may have resulted in the dispersal of this species onto more suitable habitat to the northwest of the Project site. While this species is expected to continue to periodically use the site, low numbers are expected to occur. During construction and site-preparation activities, individuals of these species occurring within or adjacent to habitat proposed for conversion are expected to be displaced to suitable habitat areas in the project vicinity. Due to the low numbers of this species potentially occurring on the site, loss of on-site habitat due to project implementation is not expected to substantially affect this special-status species or cause the regional population to drop below self-sustaining levels.

San Diego desert woodrat — San Diego desert woodrat occupies moderate to dense canopies in coastal scrub formations of Southern California from San Diego County to San Luis Obispo County. It can be particularly abundant in rock outcrops, rocky cliffs, and slopes. Suitable habitat for this species is present, although woodrat nests have not been observed on site. Impacts to this species would be a potentially significant impact under CEQA. Implementation of **Mitigation Measure BR-3** would mitigate this impact to a less than significant level.

American badger — American badger utilizes drier, open stages of most shrub, forest, and herbaceous habitats with friable soils. Despite the lack of records in the site vicinity, suitable habitat is present, this wide-ranging species is known to occur in the region, and one individual was observed during a biological survey in March 2016 and its burrow on the site was mapped. The loss of individuals of this species from the subject property would be a potential violation of CEQA. Implementation of **Mitigation Measure BR-4** would mitigate this impact to a less than significant level.

Impact Bio-2 **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Less than Significant with Mitigation

As previously discussed, and shown in **Table 3.3-6, Data Summary by Waters Feature, Routine Wetland Determination** no riparian habitat occurs on the proposed Project site, and there would be no impact.

As depicted on Figure 3.3-2, the Project would result in the loss of 14.55 acres of California sagebrush-deerweed scrub, 5.29 acres of blue elderberry scrub (disturbed/grazed), and 0.08 acre of cactus scrub that total 19.92 acres. Impacts to these vegetation communities is potentially significant. Implementation of **Mitigation Measures BR-6**, and **BR-7** would mitigate these impacts to a less than significant level through on-site restoration that will improve the biological diversity and provide higher quality habitat than the disturbed condition of these communities that currently exists.

Impact Bio-3 **Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

Less than Significant with Mitigation

As previously discussed, and shown in **Table 3.3-6, Data Summary by Waters Feature, Routine Wetland Determination** no riparian habitat occurs on the proposed Project site, and there would be no impact.

Drainage 1 in the western portion of the Project site is an ephemeral drainage with a significant nexus to Walnut Canyon Creek; therefore, this drainage may be subject to Section 404 of the CWA, and section 401 of the CWA by the RWQCB. All the streambed and streambank habitats up to the top of bank are subject to the jurisdiction of the CDFW pursuant to Section 1600 et seq. of the CFGC. The loss of any waters or streambeds under the jurisdiction of CDFW would be considered significant and are subject to its regulatory and permitting authority.

Some required portions of the Ventura County Watershed Protection District (previously the Ventura County Flood Control District) flood-control master plan facilities are incorporated as part of the proposed project; these facilities would serve the Project site and provide flood control for the local drainage basin (i.e., Gabbert and Walnut Canyons). These facilities were identified as part of the *Gabbert and Walnut Canyon Channels Flood Control Deficiency Study*, which was prepared for the Ventura County Flood Control District (dated March 1997).

The Walnut Canyon Channel, which is part of this drainage system, has been identified as likely subject to regulations by the USACE and RWQCB under Sections 404 and 401 of the CWA, respectively, as well as CDFW pursuant to Section 1600 et seq. of the CFGC (refer to **Figure 3.3-3, Potential Jurisdictional Areas within the Study Area, and Figure 3.3-5, Potential Jurisdictional Areas within the Study Area with Site Plan Overlay**). Further, the following connections will be made to the Walnut Canyon Channel as part of the Project's proposed hydrological/drainage improvements:

- Parallel RCBs (Reinforced Concrete Boxes) will connect to the existing channel at the southeastern corner of the site. These will be used to convey peak flows from the channel into Basin 3. The exact size and number of the boxes will be confirmed during final design, but preliminary calculations suggest six (6) 9'-wide x 2.5'-high boxes (Kasraie Consulting, Hitch Ranch Hydrology Study Report Update, February 2020, refer to **Appendix 3.9-A**).
- Immediately downstream of the RCBs a rectangular orifice 'hanging wall' will be constructed across the full width of the channel which will allow low flows in the channel to continue downstream, but will divert peak flows into Basin 3 via the parallel RCBs.
- Parallel RCBs will connect to the channel as the primary discharge for Basin 3. The exact size and number of the boxes will be confirmed during final design, but preliminary calculations suggest three (3) 8'-wide x 4'-high boxes (Kasraie Consulting, Hitch Ranch Hydrology Study Report Update, February 2020, refer to **Appendix 3.9-A**).
- A single RCP (Reinforced Concrete Pipe) will connect to the channel as the low-flow discharge for Basin 3. This will likely be 24-inch diameter.
- Parallel RCBs will connect to the channel as the primary discharge for Basin 2. The exact size and number of the boxes will be confirmed during final design, but preliminary calculations suggest two (2) 7'-wide x 4'-high boxes (Kasraie Consulting, Hitch Ranch Hydrology Study Report Update, February 2020, refer to **Appendix 3.9-A**).
- A single RCP (Reinforced Concrete Pipe) will connect to the channel as the low-flow discharge for Basin 2. This will likely be 24-inch diameter.
- Extension of the existing box culvert beneath Gabbert Road to accommodate the proposed road widening. Culvert will need to be widened approximately 50-feet to the west.

None of these proposed improvements would result in expansion of the Channel or alter its original functional intent. As the Channel is concrete-lined, the proposed hydrological/drainage improvements would not result in the removal of riparian vegetation or result in a degradation of the overall condition of aquatic resources within the Channel.

As the Walnut Canyon Channel has been identified as jurisdictional, impacts to the Channel in order to complete the proposed hydrological/drainage improvements are potentially significant; implementation of **Mitigation Measure BR-8** would minimize impacts to jurisdictional water resources to the extent practicable, and would reduce impacts to a less than significant level.

Further, as previously discussed, VCWPD is responsible for the on-going maintenance for flood control purposes of the Walnut Canyon Channel; there is an existing 25' easement in favor of VCWPD on Project

Site, and additional records indicate that there is a 15' wide easement on the railroad property in favor of VCWPD (for a total easement corridor width of 40'). VCWPD also maintains an access road within their easement. The proposed specific plan includes a 2.7-acre VCWPD easement along the southern project boundary, south of the proposed right-of-way for the extension of High Street.

As shown on **Figure 3.3-5, Potential Jurisdictional Areas within the Study Area with Site Plan Overlay**, the construction of Basins 2, 2B, and North Hills Parkway would result in impacts to Drainage 1. Up to 0.3 acre of waters of the U.S. and waters of the State and 1.06 acre of CDFW-jurisdictional streambed would be impacted. Because this drainage has an apparent nexus with Walnut Canyon Creek, a tributary to Calleguas Creek, a TNW, Drainage 1 may be subject to the requirements of the USACE under Section 404 of the CWA, RWQCB under Section 401 of the CWA, and within the jurisdiction of CDFW pursuant to Section 1600 et. seq. of the CFGC. Implementation of **Mitigation Measure BR-8** would compensate for impacts to jurisdictional water resources and reduce impacts to less than significant.

Additional, minor on-site drainage features within the development envelope are strictly erosional, and follow unused utility roads, culvert outlets, or emerge spontaneously from hillsides where vegetative cover has been reduced. Such features do not qualify as USACE, RWQCB or CDFW jurisdiction and therefore impacts to these features would not be considered significant under CEQA.

Impact Bio-4 **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.**

Less than Significant with Mitigation

As previously discussed, the Project site is almost entirely surrounded by various densities of development, with open space and residential development to the north; a railroad, Poindexter Avenue, and light industrial and residential uses to the south; rural residential and Walnut Canyon School to the east, and rural residential and agricultural uses to the west. The surrounding developments and roadways, which include Championship Drive, and Meridian Hills Drive to the north, Walnut Canyon Road/State Route 23/Moorpark Avenue to the east, Poindexter Avenue to the south, fenced Gabbert Road separating the western portion, and Grimes Canyon Road to the west, separate the Project site from the remnant open space outside of the City of Moorpark. Due to the degree of disturbance on site and barriers created by the surrounding development, the Project site is not expected to be used as a movement corridor by wildlife and impacts would be less than significant.

However, a number of mature trees are scattered across the Project site. Although the trees are mainly ornamental and non-native, they may provide suitable habitat, including nesting habitat, for migratory

birds. The Migratory Bird Treaty Act of 1918 (MBTA) implements the United States' commitment to four treaties with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. The US Fish and Wildlife Service administers permits to take migratory birds in accordance with the MBTA. Implementation of **Mitigation Measure BR-9** would mitigate potential impacts to migratory birds to a less than significant level.

Impact Bio-5 **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands).**

Less than Significant with Mitigation

In Ventura County, California walnut trees over 3-inches DBH on private property within Scenic Resources Protection Zones are considered protected trees. As the Project site is not within a Scenic Resources Protection Zone, this protection would not be applicable.

Mature non-native trees, which are of local special interest, are present on the site. The City of Moorpark tree ordinance (No. 101) provides for the protection of mature trees with a cross-sectional area of all major stems of 72 or more square inches (equivalent to greater than 9.6 inches DBH), as measured at 4.5 feet above the root crown.

A Tree Survey performed by LNDG, included as **Appendix 3.3-G** to this Draft EIR, in July 2020 found 282 mature trees on the Project site. Nearly all of the trees on the Project site are either blue gums (35 percent) or Peruvian pepper trees (52 percent). The blue gums were historically planted for agricultural purposes and have become naturalized. The pepper trees are a common landscape plant and also have become naturalized.

The two dominant species on this site, along with four other species present, are included on the 410 - Prohibited Plant List (April 2019) put out by the Ventura County Fire Protection District. This is a list of plants that the Ventura County Fire Department recommends be removed or thinned in Defensible Spaces and Fuel Modification Zones as they define them. The number and species of trees present on the subject site are shown in **Table 3.3-3, Mature Trees on the Hitch Ranch Site** (reproduced below).

Table 3.3-3
Mature Trees on the Hitch Ranch Site

Common name	*Scientific name*	Number of mature trees
Cypress*	*Cupressus sp*	1
Blue gum*	*Eucalyptus globulus*	98
White gum*	*Eucalyptus viminalis*	3
Pine tree*	*Pinus sp.*	1
African sumac	*Rhus lancea*	2
Elderberry	*Sambucus mexicana*	19
Peruvian pepper tree*	*Schinus molle*	146
Chinese elm	*Ulmus parvifolia*	1
Mexican fan palm*	*Washingtonia robust*	5
California black walnut	*Juglans californica*	6
Totals		**282**

** - Trees that are included on the Ventura County Fire Protection District, 410-Prohibited Plant List.*

Source: L. Newman Design Group, Inc., Tree Report, August 2020

Implementation of **Mitigation Measure BR-10** would ensure that a tree removal permit is be obtained from the City prior to removal of trees that meet the mature tree criteria within the City's tree ordinance (No. 101). Permits will not be issued until the project has been approved by the City. The loss of trees shall be mitigated by using the appraised value of each removed tree and then applying the value towards upgrading the size of the tree plantings associated with the project. The proposed replacement tree species shall emphasize native species and must be consistent with the City's Landscape Design Standards and Guidelines to ensure that invasive species will not be used. In accordance with the Landscape Design Standards and Guidelines, 'enhanced landscaping' shall be installed that is equal to the value of the trees removed. Enhanced landscaping is generally defined as landscape improvements above and beyond the minimum requirements. The cost of the new trees will go towards the value of the trees removed. Impacts to protected trees resulting from the proposed project would be less than significant with implementation of this mitigation measure.

Impact Bio-6 **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**

No Impact

There is no habitat conservation plan in place or proposed for this region. Therefore, no impacts to such a plan would occur as a result of construction and operation of the proposed project.

3.3.5.2 Indirect Impacts

Indirect impacts to biological resources would occur within the remaining habitat areas subsequent to project buildout, as well as to natural habitat areas adjacent to the proposed Project site. It is expected that implementation of the proposed project would generally result in indirect impacts to biological resources in the following ways:

- Permanent increased human and domestic animal presence
- Increased populations of plants and wildlife species associated with a suburban environment
- Increased light and glare
- Temporary construction-related activities, workers, dust and noise

Indirect impacts associated with the proposed project are not quantifiable, but are reasonably foreseeable. As such, the discussion that follows provides a common-sense identification of the types of indirect impacts and their relative magnitude, to provide decision makers and the general public with an awareness of this project's potential for indirect impacts.

Increased Human and Domestic Animal Presence

The proposed project would increase human presence adjacent to existing and proposed open space areas both on and off the site. It can be reasonably assumed that some people who would reside on the Project site post-construction would use the remaining open space areas for recreational purposes. The most substantial effect on biological resources would be the disturbance to remaining plant communities in these open space areas, including sensitive habitats such as California sagebrush-deerweed. Increased recreation, pets on- and off-leash, and other human activity around these areas would likely displace and even endanger a number of wildlife species, potentially increase the amount of refuse and pollutants in the area, compact soils, and disturb ground-dwelling flora and fauna.

It is expected that there would be an increase in use of the site and adjacent open space by domestic animals. Domestic pets such as dogs and cats disturb wildlife nesting and roosting areas, chase or kill animals, and disrupt the normal foraging and breeding activities of wildlife. If this occurs frequently and over a long period of time, these disturbances could have a long-term effect on the behavior of remaining wildlife species, resulting in their displacement from the area.

The Project site has been subjected to a substantial amount of human and domestic animal impacts associated with agricultural activities. Therefore, increases in the presence of humans and domestic animals that would be caused by the project would be an adverse, but not significant, impact.

Increase in Populations of Plant and Wildlife Species Associated with a Suburban Environment

After project completion, a number of non-native and suburban-adapted plant and wildlife species that are typical of a suburban setting would be expected to increase in population. Due to their ability to compete more effectively for nest sites and food within and adjacent to suburban areas, non-native wildlife species, including house sparrow, house mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), and European starling (*Sturnus vulgaris*) could potentially displace native species. Ornamental and non-native plants used in landscaping and gardens could disperse seeds into surrounding open space areas and, as a result of the ability of some of these species to more readily adapt to varying soil and weather conditions, could displace native plant populations.

As a result of existing suburban development in the project area, non-native plants and animals already occur on the site and in the vicinity. However, it can be reasonably concluded that development of the proposed project would exacerbate this condition and that the additional increase in non-native species could reduce populations of native species, including special-status species, on and near the site. Therefore, the increase in populations of plant and animal species associated with a suburban environment that would be caused by the project is a potentially significant impact. Implementation of **Mitigation Measures BR-7, BR-11 and BR-12** would mitigate this impact to a less than significant level.

Increased Light and Glare

While illumination associated with adjacent residential areas may already adversely affect the resident wildlife associated with the Project site to some degree, implementation of the project would substantially increase the number of nighttime light sources on remaining habitat areas during and following construction. Such light could disrupt breeding and nesting cycles, as well as resting and roosting behavior of diurnal (daytime) wildlife species remaining on the Project site. In addition, species normally in hiding during the night could become more vulnerable to nighttime predators, thus causing an artificial increase

in predation and possible decline in the population levels of certain species. While it is difficult to determine the exact level of this impact, it can be reasonably assumed that, over a period of time, this disruption could eventually substantially reduce the animal species composition remaining on and adjacent to the site, resulting in lower species diversity and lower population levels. Therefore, the project-related increase in nighttime lighting and glare is a potentially significant impact of the project. Implementation of **Mitigation Measures BR-13 and BR-14** would mitigate this impact to a less than significant level.

Construction-Related Activities

Project construction (particularly site clearing and grading operations) would have the potential to impact surrounding areas not being developed and adversely affect remaining plant communities and plant and animal species, including coastal California gnatcatchers that may nest within the undisturbed open space that is offsite to the north. As depicted in the project's Conceptual Fuel Modification Plan (Dudek, no date), fuel modification will largely be confined to the project boundary and no brush clearance would occur offsite to the north within the undisturbed open space area. Specifically, worker presence, increased noise and dust impacts can cause displacement and disturbance of wildlife, which could result in possible nest or den abandonment during the breeding season, siltation, and erosion into drainages off-site, excessive dust accumulation on vegetation that could result in the degradation or loss of some plant species, and soil compaction around remaining trees. Depending on the level of disturbance, construction-related activities could have substantial effects on plant and wildlife habitat and, together, would be a significant impact. Implementation of **Mitigation Measures BR-9** would ensure that impacts to common birds nesting within 300-feet from construction, and raptors or special-status bird species nesting within 500-feet from construction, are avoided. Implementation of this mitigation measure, along with **BR-15** through **BR-21,** would mitigate impacts to sensitive biological resources to a less than significant level.

3.3.6 Cumulative Impacts

A variety of residential, commercial, and industrial projects are proposed within the City of Moorpark and in adjacent areas of Ventura County. Implementation of these projects would result in the incremental conversion of open space areas to "built environment." Those projects that occur within developed areas would not affect local or regional biological resources; however, projects located in natural areas would result in the removal of native vegetation and displacement/destruction of resident wildlife. Cumulative effects would include both direct and indirect biological impacts, and would result in a general loss of biological diversity in the region. The net loss of 19.92 acres of native plant and wildlife habitat and 141.64 acres of annual brome grassland and non-native woodland on the site, in conjunction with the loss of other open space areas within the City of Moorpark and in adjacent areas of Ventura County, is a substantial loss of habitat and is, therefore, considered a significant cumulative impact. Mitigation measures for the

proposed project or for any other similar large-scale project that is proposed on the edge of the existing suburban environment include the replacement or restoration of similar or better-quality habitat nearby to reduce the long-term biological effects of permanent conversion of large blocks of open space areas. Implementation of **Mitigation Measure BR-6** would reduce the identified cumulative impacts to a less than significant level by requiring on-site, off-site, or purchase of off-site mitigation credits for restoration of native vegetation communities. This mitigation measure requires replacement of coastal sage scrub habitat where coastal California gnatcatcher were observed in 2021. The loss of this grazed and degraded vegetation is not expected to cause the local coastal California gnatcatcher population to drop below self-sustaining levels when considering its poor quality and the higher quality habitat that exists offsite immediately to the west and north where this species is expected to forage, nest, and disperse. This includes most of the California sagebrush -deerweed scrub to the west of Gabbert Road that is within the project boundary that would be avoided.

3.3.7 Related Planning Programs

The following addresses the project's consistency with the policies of the *City of Moorpark General Plan* Land Use Element applicable to biological resources. As discussed in this section of the Draft EIR, the project would result in direct and indirect impacts to plants, wildlife, and their habitats. However, a mitigation program is provided to fully mitigate project-specific impacts. This mitigation program consists of resource avoidance, restoration, and revegetation to ensure no net loss of significant biological resources. Prior to mitigation, direct or indirect impacts to special-status plant species listed as threatened or endangered, or CNPS List 1 or 2 species, occurring on the site are significant. After mitigation, the project would be consistent with the identified goals and policies.

3.3.8 MITIGATION MEASURES

3.3.8.1 Standard Conditions and Requirements

If ground or vegetation disturbance is anticipated within 50 feet of the jurisdictional Drainage 1 in the western portion of the site, the applicant shall be required to obtain a CDFW Streambed Alteration Agreement pursuant to Section 1600 et seq. of the CFGC. This authorization shall be obtained prior to initiating grading permits or clearing and grubbing activities near Drainage 1. All conditions of the agreement that are designed to minimize impacts to biological resources and all measures to mitigate for the loss of jurisdictional habitats shall be implemented. Implementation of mitigation designed to offset impacts to areas of CDFW jurisdiction shall be monitored by the City (under the California Environmental Quality Assurance Program) for the project.

The City's standard Conditions of Approval, provided in **Section 3.1, Aesthetics**, require the submission of landscaping and lighting plans for review and approval by the Community Development Director.

3.3.8.2 Mitigation for Direct Impacts

Special-Status Wildlife

BR-1: The applicant shall retain a qualified biologist with a CDFW Scientific Collection Permit and Memorandum of Understanding to conduct preconstruction surveys for the western spadefoot, coastal western whiptail, and coast horned lizard, and coast patch-nose snake in areas that would be disturbed within the Project site. All western spadefoot, coastal western whiptail, and coast horned lizard, and coast patch-nose snake observed within the Project site during preconstruction surveys must be relocated, at the approval of the City and CDFW, to an approved site with suitable habitat for these species. Surveys and relocation of spadefoots, lizards, and snakes may occur prior to construction; however, focused surveys must occur within 30 days prior to construction initiation to ensure that no special-status reptiles or amphibians are present within the Project site during construction. Survey methods and relocation areas must be reviewed and approved by the CDFW prior to commencement of grading.

Timing/Implementation: Within 30 days prior to grading activities

Enforcement/Monitoring: City of Moorpark Community Development Department

BR-2: Within thirty days prior to construction activities, a qualified biologist shall conduct CDFW protocol surveys to determine whether the burrowing owl is present at the site. The surveys shall consist of up to three site visits and shall be conducted in areas dominated by field crops, disturbed habitat, grasslands, and along levee locations, if such habitats occur within 500 feet of a construction zone. If located, occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either the birds have not begun egg-laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If a burrowing owl is detected but nesting is not occurring, construction work can proceed after any owls have been evacuated from the site using CDFW-approved passive relocation and burrow closure procedures and after alternative nest sites have been provided in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (10-17-95).

Unless otherwise authorized by CDFW, a 500-foot buffer, within which no activity will be permissible, will be maintained between project activities and nesting burrowing owls during the nesting season. The buffer area may be reduced if there is no evidence of indirect impairment to owls based on direct observations by a monitoring biologist. The protected area will remain in effect until August 31 or at CDFW's discretion and based upon monitoring evidence, until the young owls are foraging independently.

Timing/Implementation: Within 30 days prior to grading activities

Enforcement/Monitoring: City of Moorpark Community Development Department

BR-3: Within thirty days prior to construction activities in grassland and scrub vegetation a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit and San Diego desert woodrat.

If San Diego black-tailed jackrabbits are present, non-breeding rabbits shall be flushed from areas to be disturbed. Dens, depressions, nests, or burrows occupied by pups shall be flagged and ground-disturbing activities avoided within a minimum of 200 feet during the pup-rearing season (February 15 through July 1). This buffer may be reduced based on the location of the den upon consultation with CDFW. Occupied maternity dens, depressions, nests, or burrows shall be flagged for avoidance, and a biological monitor shall be present during construction. If unattended young are discovered, they shall be relocated to suitable habitat by a qualified biologist. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

If active San Diego desert woodrat nests (stick houses) are identified within the disturbance zone or within 100 feet of the disturbance zone, a fence shall be erected around the nest site adequate to provide the woodrat sufficient foraging habitat at the discretion of the qualified biologist in consultation with CDFW. If young are present, clearing and construction within the fenced area will be postponed or halted until young have left the nest. The biologist shall serve as a construction monitor during those periods when disturbance activities will occur near active nest areas to ensure that no inadvertent impacts to these nests will occur. If avoidance is not possible, the applicant will take the following sequential steps:

1. All understory vegetation will be cleared in the area immediately surrounding active nests followed by a period of one night without further disturbance to allow woodrats to vacate the nest;

2. each occupied nest will then be disturbed by a qualified wildlife biologist until all woodrats leave the nest and seek refuge off site; and

3. the nest sticks shall be removed from the Project site and piled at the base of a nearby hardwood tree (preferably a coast live oak or California walnut).

Relocated nests shall not be spaced closer than 100 feet apart, unless a qualified wildlife biologist has determined that a specific habitat can support a higher density of nests. The applicant shall document all woodrat nests moved and provide a written report to CDFW.

All woodrat relocation shall be conducted by a qualified biologist in possession of a scientific collecting permit.

Timing/Implementation: Within 30 days prior to grading activities

Enforcement/Monitoring: City of Moorpark Community Development Department

BR-4: Within thirty days prior to construction activities in grassland, scrub, chaparral, oak woodland, riverbank, and agriculture habitats, or other suitable habitat a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for American badger.

If American badgers are present, occupied habitat shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den. Maternity dens shall be avoided during the pup-rearing season (February 15 through July 1) and a minimum 200-foot buffer established. This buffer may be reduced based on the location of the den upon consultation with CDFW. Maternity dens shall be flagged for avoidance, identified on construction maps, and a qualified biologist shall be present during construction. If avoidance of a non-maternity den is not feasible, badgers shall be relocated either by trapping or by slowly excavating the burrow (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than 4 inches at a time) before or after the rearing season (February 15 through July 1). Any relocation of badgers shall occur only after consultation with CDFW.

Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

Timing/Implementation: Within 30 days prior to grading activities

Enforcement/Monitoring: City of Moorpark Community Development Department

BR-5: Disturbed vegetation located on the east-side of Gabbert Road that includes California sagebrush-deerweed scrub, cactus scrub, and blue elderberry stands, which are unsuitable for CAGN nesting but used as foraging habitat, shall be replaced at a ratio of 1:1. Although no individuals or breeding territories have been observed within the undisturbed California sagebrush-deerweed scrub to the west of Gabbert Road, impacts to this vegetation shall be replaced at a 2:1 ratio due to its potential to support foraging and nesting CAGN. CAGN habitat shall be restored on-site. If a suitable on-site location is not feasible, restoration may occur at a mitigation bank, approved by USFWS prior to issuance of a grading permit or any ground disturbing activities on the Project site. If mitigation requirements cannot be met on-site and/or through the purchase of credits at a mitigation bank, a suitable off-site location may be identified and utilized subject to City and USFWS approval. Moreover, consultation with USFWS in accordance with FESA will occur prior to issuance of a grading permit or any ground disturbing activities and their recommendations followed. The applicant shall be responsible for obtaining all necessary regulatory agency permits for compliance with the FESA.

Timing/Implementation: Prior to issuance of a grading permit or any ground disturbing activities.

Enforcement/Monitoring: USFWS, City of Moorpark Community Development Department

Plant Communities

BR-6: Sixty (60) days prior to scheduled site mobilization, the applicant shall submit a Native Habitat Restoration Plan for the restoration of a native habitat on the site to the satisfaction of the Community Development Director, CDFW, and USFWS, which shall be approved by the aforementioned prior to issuance of a building permit or ground disturbing activities at the Project site. At a minimum, the Restoration Plan shall identify all responsible parties/stakeholders, performance standards, success criteria, plant pallet and planting methods, irrigation details and watering schedule, maintenance measures and schedule, monitoring and reporting requirements, contingencies, adaptive management strategies,

and funding sources, such as an endowment for long-term management. Native vegetation on the Project site shall be incorporated in the plan at the ratios indicated below:

Plant Community	Replacement Ratio (area replaced : area impacted)
California sagebrush -deerweed scrub (west of Gabbert Road)	2:1
California sagebrush -deerweed scrub (east of Gabbert Road)	1:1
Blue elderberry stands (disturbed/grazed)	1:1
Cactus scrub	1:1

Source: Rincon Consultants, Inc., July 2021

Once approved, implementation of the Native Habitat Restoration Plan shall be required as a condition of approval of the Tract Map and RPD. The restoration shall be performed in accordance with current best available restoration practices and the applicant (or designee) shall be responsible for maintaining the restoration areas for a period of five years to ensure the successful establishment of the plantings, which shall be extended an additional three years if determined necessary by the Community Development Director. The applicant shall pay the costs for monitoring restoration of the Native Habitat for the full and complete restoration time period, which if extended shall require further payment. If a suitable on-site restoration is not feasible, restoration may occur at a mitigation bank, approved by CDFW and USFWS prior to issuance of a grading permit or any ground disturbing activities on the Project site. If restoration requirements cannot be met on-site and/or through the purchase of credits at a mitigation bank, a suitable off-site location may be identified and utilized. The off-site location and restoration Plan shall be reviewed and approved by the City prior to issuance of a grading permit and secured prior to any ground disturbing activities on the Project site.

Timing/Implementation: Plan submittal 60 days prior to scheduled site mobilization. Prior to issuance of grading permits (review of plan), prior to issuance of occupancy permits (site inspection)

Enforcement/Monitoring: Community Development Director

BR-7: All areas temporarily impacted by project grading and construction activities but within the fuel management zone must be revegetated with California native plant species, with densities and spacing consistent with the intent of maintaining fuel management zones as

described in the City's Landscape Standards and Guidance and the Hitch Ranch Fire Protection Plan (refer to **Appendix 3.18-A**).

Timing/Implementation: Seeding shall occur within the fall/winter season immediately following the completion of grading and construction activities to maximize successful plant establishment.

Enforcement/Monitoring: City of Moorpark Community Development Department

BR-8: In order to comply with city, state, and federal regulations regarding impacts to USACE, CDFW and RWQCB jurisdictional areas permitting must be executed pursuant to Section 404 of the federal Clean Water Act and the *California Fish and Game Code* (Section 1602), for all impacts to WOTUS and streambeds. All conditions of the agreements with these agencies designed to minimize impacts to biological resources shall be implemented.

Impacts associated with permanently disturbed areas within regulated waters would be mitigated in-kind at a minimum ratio of 1:1. Mitigation will be completed by providing adequate funding to a conservation bank for re-establishment, rehabilitation or enhancement. Mitigation lands should be located in the regional vicinity of the Project site or within the Calleguas Creek Watershed. Note: the final mitigation ratios required by regulatory agencies during the permitting process may differ from those identified above. The applicant shall be responsible for obtaining all necessary regulatory agency permits for compliance with the Clean Water Act and California Fish and Game Code.

Timing/Implementation: Prior to issuance of grading permits

Enforcement/Monitoring: City of Moorpark Community Development Department

Common and Special-Status Bird Nests

BR-9: Within seven (7) days prior to construction or site preparation activities that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically January 15 through August 30 for raptors and February 15 through September 15 for migratory passerines), the applicant shall have a field survey conducted by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act or the *California Fish and Game Code* are present in the construction zone or within 300 feet (500 feet for raptors or federally listed endangered or threatened bird species) of the construction zone. If active nests are found, all construction activities within the 300-500-foot buffer zones must be postponed or halted, until the biologist determines

that the nest is vacated, juveniles have fledged, and there is no evidence of a second attempt at nesting. The biological monitor shall be able to adjust the size of the buffer zone dependent on the species involved (i.e., non-raptors and common species) and/or allow certain activities within the buffer zone if it can be shown that the activity will not interfere with nesting. The biologist shall serve as a construction monitor during those periods when construction activities would occur near active nest areas to ensure that no inadvertent impacts occur to these nests.

Timing/Implementation: No earlier than 7 days and no later than 5 days prior to construction or site preparation activities that would occur during the nesting/breeding season.

Enforcement/Monitoring: City of Moorpark Community Development Department

Mature Trees

BR-10: A tree removal permit must be obtained from the City prior to removal of trees that meet the mature tree criteria within the City's tree ordinance (No. 101). Permits will not be issued until the project has been approved by the City. The loss of trees shall be mitigated by using the appraised value of each removed tree and then applying the value towards upgrading the size of the tree plantings associated with the project. The proposed replacement tree species shall emphasize native species and must be consistent with the City's Landscape Standards and Guidelines to ensure that invasive species will not be used. In accordance with the Landscape Design Standards and Guidelines, 'enhanced landscaping' shall be installed that is equal to the value of the trees removed.

Timing/Implementation: Tree removal permit application and replacement plan submittal at least 30 days prior to scheduled site mobilization and grading.

Enforcement/Monitoring: City of Moorpark Community Development and Parks, Recreation, and Community Services Departments

Human and Domestic Animal Presence

BR-11: Following construction, pets and other domestic animals must be prohibited from the remaining open space areas and from any revegetation areas on the Project site unless restrained by leash and accompanied at all times by the owner or responsible party. Fencing of sufficient height and design or acceptable landscaping must be constructed between the residential areas and natural areas to the north to discourage domestic animals

from entering open space habitat areas. Human access into the open space areas may occur in designated areas along the perimeter of the habitats. Prohibitions against human and domestic animal use in sensitive habitat areas must be established by the Covenants, Conditions, and Restrictions (CC&Rs). A brochure must be prepared by the developer and distributed to all home buyers that explains the purpose and sensitivity of the mitigation area and reasons why residents and their pets are discouraged from using this area. Signage shall be provided at the entrance of trails that are nearby sensitive habitat areas to notify users of the nature of the area and it's sensitivity.

The CC&Rs must also state that no structures shall be constructed within the open space areas. As determined by a qualified biologist, interpretative signs that explain the sensitivity of natural habitats and the need to minimize impacts on these adjacent areas are to be constructed and placed in appropriate areas. The project applicant shall be responsible for installation of interpretive signs (at 200-foot intervals) and fencing along the perimeter of the mitigation area.

Timing/Implementation: Prior to issuance of first occupancy permits

Enforcement/Monitoring: City of Moorpark Community Development Department

Non-native Plant and Wildlife Species

BR-12: The landscaping plans within the project area (residential and common areas) shall be prepared by a licensed California landscape architect, and shall provide appropriate provisions to prohibit using invasive plant species, especially those listed by the California Invasive Plants Council (their website provides a current invasive plants list), to prevent those species from colonizing remaining natural areas. Landscaping plans shall be consistent with the City of Moorpark Municipal Code Section 15.23 Water Efficient Landscape Ordinance and Title 17, Zoning. These provisions may include the following: (a) review and screening of proposed plant palette and planting plans to identify and avoid the use of invasive species; (b) weed removal during the initial planting of landscaped areas; and (c) the monitoring for and removal of weeds and other invasive plant species as part of ongoing landscape maintenance activities. The frequency and method of monitoring for invasive species shall be determined by the City of Moorpark Parks, Recreation and Community Services Department.

Timing/Implementation: Prior to landscaping plan approval

Enforcement/Monitoring: City of Moorpark Community Development and Parks, Recreation and Community Services Departments

Light and Glare

BR-13: Prior to issuance of a grading permit, a lighting plan prepared by a lighting consultant consistent with the Specific Plan Design Guidelines Lighting Concept shall be submitted to the City of Moorpark Department of Community Development for review and approval by the Community Development Director. The lighting plan shall incorporate 0.5 foot-candle as a threshold for spill and the minimum streetlamp glare level of 2.0 foot-candles. All fixtures shall utilize shields to direct light downward, and the lighting plan shall also incorporate other "dark sky" friendly measures to the extent feasible. Such measures may include, but are not limited to, the following or other comparable measures:

- Use lighting fixtures that are adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties.
- Restrict the operation of outdoor lighting for construction and operation activities to the hours of 7:00 a.m. to 10:00 p.m.
- Use high pressure sodium and/or cut-off fixtures instead of typical mercury-vapor fixtures for outdoor lighting.
- Use unidirectional lighting to avoid light trespass onto adjacent properties.
- Design exterior lighting to confine illumination to the project site, and/or to areas which do not include light-sensitive uses.
- Provide structural and/or vegetative screening from light-sensitive uses.
- Shield and direct all new street and pedestrian lighting away from light-sensitive off-site uses.
- Architectural lighting shall be directed onto the building surfaces and have low reflectivity to minimize glare and limit light onto adjacent properties.

(Identical to MM AES-3)

Timing/Implementation: Prior to grading permit issuance

Enforcement/Monitoring: City of Moorpark Community Development Department

BR-14: When installed, all street lighting fixtures shall be tested and adjusted to ensure that light levels do not exceed 2.0 foot-candles of glare and 0.5 foot-candle of spill at the project boundaries. Testing of street lighting fixtures shall be conducted by factory-trained and -employed technicians only, contracted for by the master developer and subject to the approval of the Community Development Director. (Identical to MM AES-4)

Timing/Implementation: Following street lighting installation

Enforcement/Monitoring: City of Moorpark Community Development Department

Construction and Grading Activities

BR-15: A City-approved biologist must be retained by the applicant as a construction monitor to ensure that incidental construction impacts on retained biological resources are avoided or minimized. Responsibilities of the construction monitor include the following:

- Attend all pre-grading meetings to ensure that the timing and location of construction activities do not conflict with mitigation requirements.

- A pre-construction Worker Environmental Awareness Program (WEAP) training shall be conducted for all construction employees. Prior to the start of construction activities, the WEAP shall be presented to inform construction supervisors, workers, and inspectors of sensitive resources that have a moderate to high potential of occurrence on the Project site, to explain their importance and sensitivity, to review regulatory protections afforded to these resources, and to describe the project design features and mitigation measures adopted to avoid and reduce impacts. Training shall identify individual responsibilities regarding these resources, and communication procedures should sensitive resources exist or be found in the project area. Training participation shall be documented and kept as a log on site. Workers will receive a hard hat decal to show completion and receive a reference resource (i.e. wallet card, brochure, etc.) for later review as needed.

- Conduct meetings with the contractor and other key construction personnel, describing the importance of restricting work to within the project boundaries and outside of the preserved areas. The monitor shall also discuss staging/storage areas for construction equipment and materials. The biological monitor shall investigate all on-site storage areas to minimize impacts to biological resources.

- Guide the contractor in marking/flagging the construction area, in accordance with the final approved grading plan. Any construction activity areas immediately adjacent to special-status plant populations or other special-status resources may be directed to be flagged or temporarily fenced at the discretion of the monitor.

- Periodically and routinely visit the site during construction to coordinate and monitor compliance with the above provisions.

Timing/Implementation: During grading and construction activities

Enforcement/Monitoring: City of Moorpark Community Development Department

BR-16: The construction contractor shall install temporary erosion control measures, if necessary, to reduce impacts to and protect off-site drainages from excess sedimentation, siltation, and erosion. These measures shall consist of minimization of existing vegetation removal; the use of temporary soil covers, such as hydroseeding, mulch/binder, and erosion-control blankets to protect exposed soil from wind and rain erosion; or the installation of silt fencing, coirs, berms, and dikes to protect storm drain inlets and drainages.

Timing/Implementation: During grading and construction activities

Enforcement/Monitoring: City of Moorpark Public Works Department

BR-17: Refueling, changing of oil or other fluids, and vehicle maintenance may be allowed in designated areas located a minimum of 50 feet away from any drainages or proposed mitigation areas. The contractor shall be responsible for providing, and maintaining covered trash bins or dumpsters for any trash or other construction waste materials generated on the site during the project. Vehicles carrying supplies, such as concrete, may not empty, clean out, or otherwise place materials into any mitigation or opens space areas on or immediately adjacent to the site. Any spills or trash on the site, whether accidental or not, must be cleaned up at the end of each working day.

Timing/Implementation: During grading and construction activities

Enforcement/Monitoring: City of Moorpark Public Works Department

BR-18: Any equipment or vehicles driven or operated within or adjacent to drainages must be checked and maintained daily, to prevent leaks of materials that if introduced to water

could be deleterious to aquatic life. (Vehicles and equipment shall not be left idling or operated beyond periods needed to accomplish approved tasks.)

Timing/Implementation: During grading and construction activities

Enforcement/Monitoring: City of Moorpark Public Works Department

BR-19: Construction personnel are prohibited from entry into areas outside the designated construction area, except for necessary construction related activities, such as surveying. All such construction activities including access in or adjacent to remaining open space areas must be coordinated with the project biologist.

Timing/Implementation: During grading and construction activities

Enforcement/Monitoring: City of Moorpark Public Works Department

BR-20: Standard dust-control measures of the Ventura County Air Pollution Control District must be implemented to reduce impacts to nearby plants and wildlife. This includes a variety of options to reduce dust including replacing ground cover in disturbed areas as quickly as possible, using tackifiers in watering trucks on active sites regularly, and suspending all excavating and grading operations during periods of high winds.

Timing/Implementation: During grading and construction activities

Enforcement/Monitoring: City of Moorpark Public Works Department

BR-21: Upon completion of construction, the contractor shall be held responsible for scarifying and hydroseeding, using native plant seeds, on any haul roads, access roads, or staging areas that are outside of approved grading limits. This restoration must be done in consultation with the project biologist.

Timing/Implementation: Following grading and during construction activities

Enforcement/Monitoring: City of Moorpark Public Works Department

3.3.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of recommended mitigation measures would reduce the potential direct project-specific impacts to plant communities, common and special-status bird nests, special-status plants, special-status animals, and jurisdictional water resources to a less than significant level. Indirect impacts to biological

resources resulting from project construction activities, increased light and glare, and increases in non-native plant and wildlife species would also be reduced to a less than significant level.

Despite the presence of signage and educational information on remaining sensitive habitat areas on the site, it is likely that domestic animal use of open space areas, including California sagebrush-deerweed, would continue to occur. Conformance to guidelines, CC&Rs, and prohibitions on entering natural areas would be difficult to enforce and monitor. For these reasons, disturbance and degradation of these areas would be expected to result from the project. Therefore, increased human and domestic animal presence on the Project site would be an adverse, but not significant, impact even with implementation of recommended mitigation measures.

Cumulative impacts to biological resources would be reduced to less than significant with the successful mitigation of the native habitat if human and domestic animal impacts to it remain at a minimum.

3.4 CULTURAL RESOURCES

INTRODUCTION

This section presents an overview of the existing cultural resource conditions within the boundaries of the proposed Hitch Ranch Specific Plan site. It also discusses the potential impacts to cultural resources as a result of construction and operation activities associated with the proposed Specific Plan.

3.4.1 EXISTING CONDITIONS

3.4.1.1 Data Resources

In 2003, a Phase I archaeological survey (conducted by W & S Consultants) and a historical and archival records search (conducted by the UCLA Archaeological Information Center) was conducted. Aerial photographs, previous reports, and historical and archaeological maps of the specific plan area were also used. The purpose of the archaeological survey was to provide a background review of pertinent research and to determine if any known archaeological sites were present in the specific plan area. The historical records search was conducted to determine whether any cultural resources listed in or eligible for listing in the National Register of Historic Places or other inventory of architectural historic resources were located within the study area of potential effects.

On February 26, 2020, FirstCarbon Solutions (FCS) conducted an updated cultural resources records search and literature review for the Hitch Ranch Specific Plan to supplement the earlier cultural resources assessment completed by W&S Consultants in 2003. Based on the age of the previous report and comments received from the City of Moorpark and a third-party reviewer, it was determined that an updated records search and literature review would be sufficient to bring the report up-to-date and in compliance with California Environmental Quality Act (CEQA) Guidelines.

The Phase I archaeological survey/cultural resources assessment and the historical and archaeological records search are available in **Appendix 3.4**.

3.4.1.2 Ethnographic and Prehistoric Background

Hitch Ranch, lying in southeastern Ventura County, California, is situated in a zone known to have prehistorically comprised a portion of the Canaliño culture area, and historically to have been a part of the Chumash ethnolinguistic sphere. In general, archaeological terms, the region of the Canaliño culture area is known to have first been occupied during the Early Millingstone period, which dates back to approximately 9,000 years before present (B.P.). During this period, subsistence is posited to have

emphasized plant resources, and site assemblages are dominated by large-sized and relatively crude chopping, grinding, and pounding tools. Around 3500 years B.P., the prehistoric inhabitants of the region are said to have made a transition to a more hunting-oriented economy, which occurred during the duration of the Intermediate period, lasting to about AD 1200. Artifacts particularly diagnostic of this period include large, stemmed projectile points, which were probably used as spear or dart points, although smaller arrow points were introduced after about AD 500. The Intermediate period was subsequently replaced by the Late Prehistoric, or Canaliño, period which lasted until the time of Spanish missionization during the last two decades of the 18th century. The Canaliño period witnessed a florescence of aboriginal culture, which included a substantial growth in population, the establishment of permanent settlements on the coast, a high degree of sociopolitical complexity, and the development of a very sophisticated maritime economy. It was during the Canaliño period that the ethnolinguistic group now known as the Chumash achieved levels of cultural and social sophistication perhaps unrivalled by hunter-gatherer groups anywhere else in the world.

The term "Chumash" strictly applies to a group of people united only by the use of a series of closely related Hokan languages, sharing a number of similar cultural traits, and stretching from Topanga Canyon inland to Mt. Piños and along the coast to the San Luis Obispo area. That is, it implies no necessary sociopolitical unity (as in a single tribe) and a series of different Chumash languages and political units existed at the time of Spanish contact. In the southeasternmost region of the Chumash, including the immediate area of Moorpark, Ventureño Chumash was spoken.

Based on recent ethnohistoric reconstructions, the Chumash were united into at least two major chiefdoms at the time of contact with the Spanish, and these crossed linguistic boundaries between the various Chumashan-speaking groups. One of these political bodies, Lulapin, was governed from a village occupied by the paramount chief located near modern Point Mugu, at the mouth of Calleguas Creek. This village controlled a series of smaller villages and village provinces within a large region stretching to the north of Santa Barbara at the time of Spanish contact. One of these “controlled,” or subordinate, provinces was Humaliwo, which was governed by the historic village located at modern Malibu Beach. Logically, whatever villages existed historically within the Moorpark/Simi Valley area would have been subordinate to the capital at Point Mugu as well.

While the specific region of the study area must be viewed within this general prehistoric and ethnohistoric context, it is nonetheless true that the reconstruction of Chumash prehistory and ethnohistory has largely been based on coastal evidence. That is, sites and minor regions inland from the coast obviously vary from those on the coastal strip (lacking, for example, access to coastal and maritime resources) and, therefore, exhibit not only some differences in terms of general site characteristics and adaptational trajectories, but in general chronological parameters too.

The region in Hitch Ranch is located is an inland area generally referred to as the Simi Corridor. This comprises part of a series of east-west trending valleys and intervening hill systems lying northward (and therefore inland) of the Santa Monica Mountains and Conejo Corridor. It includes the Simi Valley proper, the Tierra Rejada, Little Simi, and the Santa Rosa Valleys, all of which are tributary to the Calleguas Creek drainage. Although little archaeological research in the Simi Valley area and Simi Corridor has been published, it is probable that the prehistory of this area is similar to that of the adjacent Conejo Corridor, located immediately to the south. A relatively intensive period of research in this last area, resulting largely from development in the Thousand Oaks region and the cultural resources management studies that have been attendant to this development, has provided a thorough indication of the nature of the prehistoric record in this inland region, which appears to be applicable to the Simi Corridor as well.

A series of site complexes have now been identified and studied in the Conejo Corridor region, and it is very probable that some exist in the Simi Corridor region as well. Almost without fail, each of these complexes contains deposits or components that represent the entire temporal span of inland occupation. As well, there is no clear functional or adaptational differentiation between earlier versus later temporal components of these complexes. That is, even while there is a general tendency towards more complexity in the nature and variability of the tool assemblages towards the present, it is now clear that even some of the earlier temporal components in the region exhibit subsistence. From the initial occupation of this inland region, a much-generalized foraging strategy was followed—not necessarily by every site complex in the area, but certainly by the inland occupation when considered as a whole.

Thus, in the Conejo Corridor not only do early occupations exhibiting artifact assemblages occur that resemble more typically 'later' assemblages, which heavily emphasized hunting and hunting tools, but they also resemble late sites that appear like temporally 'earlier' sites, with a dominance of groundstone tools and chopping implements. The establishment of inland sites some 3500 years ago in the Conejo Corridor appears to represent an effort to exploit a variety of noncoastal environments by following a number of subsistence strategies. This point of initial exploitation and occupation may correlate with a shift to the modern climatic regime, which also appears to occur at this time. Further, it is clear that no single subsistence strategy uniquely characterized any specific time period; instead, a generalized foraging pattern appears to have held for the entirety of the prehistoric occupation of the area.

3.4.1.3 Historical Background

The Moorpark region, including the Hitch Ranch study area, was originally part of El Rancho Simi land grant (or, more properly, San José de Nuestra Señora de Altagracia y Simi), which was ceded by the Spanish crown to the Santiago de la Cruz Pico family in 1795 and headquartered at the Simi Adobe (at modern Strathearn Historical Park). Although now in Ventura County, El Rancho Simi was placed under

the ecclesiastical jurisdiction of Mission San Fernando, thus indicating that its original economic and social ties lay to the east, not the west.

Rancho Simi was evidently a successful enterprise until 1842, at which point it was purchased by Don José de la Guerra y Noriega, who added it to his substantial holdings that were said to stretch from Santa Barbara to San Diego. In 1862 the 113,000-acre parcel was ceded to Mr. Guerra by the US Land Commission following the war with Mexico, and the property was patented on June 19, 1865. Subsequently, the rancho in general served principally for sheep grazing until purchased by eastern investors involved in oil speculation. Because they failed to find oil, the Simi Land and Water Company was formed under the leadership of Thomas R. Bard (representing Thomas Scott of Pennsylvania) in 1887, and an effort was made to sell the land in parcels. In 1889, Robert Strathearn purchased 18,000 acres of Rancho Simi, including the eastern portion of what is now Moorpark. During the existence of the original Rancho Simi, however, it is apparent that the study area was a marginal zone (in fact, near the western boundary of the ranch) and did not figure in any historical incidents or developments.

The City of Moorpark portion of Rancho Simi, including Hitch Ranch, formed a portion of the Rancho Simi retained by the Simi Land and Water Company, of which Robert Poindexter was a major shareholder and member of the board of directors.

During the 1850s and 1860s, however, the first settlers moved into the Moorpark region and settled on land peripheral to what would be the Strathearn Ranch. Whether these individuals were squatters or not is unclear from existing records, although it is likely. Regardless, there is essentially no record of their activities and occupation of the area.

The first subdivision of Moorpark was known as Fremont or Fremontville (also sometimes referred to as Little Simi), named after General Fremont, who was said to have passed through the area on the way to the Battle of Cahuenga Pass. Fremont was recorded in 1893 by Robert and Madeline Poindexter, presumably representing the Simi Land and Water Company. Although the map of Fremont shows the town area divided into lots of various sizes, there is essentially no indication that any of these were sold and/or occupied.

For reasons related to the reorganization of the Simi Land and Water Company, Fremont was subdivided and recorded again in 1900. The Poindexters were again responsible for this subdivision, as well as for laying out the new township, which included the planting of the California Pepper trees along High Street and the establishment of a school site, in anticipation of the railroad, work for which began in 1899. Mr. Poindexter was also apparently responsible for naming the town Moorpark after a variety of apricot that was then being cultivated in the area.

3.4.1.4 Architectural Historical Resources

Background research indicates that by 1905, a rail depot, warehouse, post office, blacksmith shop, general store, barber shop, a school, and a church had been established in the unincorporated town of Moorpark. By 1920, the town had established itself as the apricot center of Ventura County.

Examination of the Piru (1921 and 1941) 15-minute series historical map indicates the specific plan area was partially developed in 1921 with unimproved and loose surface roads, few structures, and the Southern Pacific Railroad. By 1941, there were orchards and State Routes 23 and 118. A small street grid pattern associated with the City of Moorpark was present at that time.

According to the original subdivision map of Moorpark, the central portion of the current study area was owned by E. J. Whitney in 1900, while the Gabbert Ranch had been established to the west of the property at about the same time. However, this map does not indicate whether structures were placed within the property, and subsequent maps record no buildings or roads on the property in 1921 and 1942. Accordingly, our best interpretation is that the Hitch Ranch area was peripheral to the historical events in the development of Moorpark, although it may have been used for farming and/or grazing as early as 1900. However, it is possible that a homestead was present on the property around the turn of the century, and that it had been destroyed prior to the 1921 map, or simply omitted from it. That is, the background historical studies suggest that historical resources might be present within the Hitch Ranch area.

Prior to the October 2003 fire, there were vacant farming operations on a hilltop in the center of the Project site consisting of a dilapidated wooden barn, two sheds, and rusting equipment. Remains of a burned single-family residence and accessory buildings were found next to the western terminus of Casey Road at the eastern site boundary. All structures were destroyed, and none remain on the Project site as a result of the fire.

On February 26, 2020, an updated records search was conducted at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton for the project area and a 0.50-mile radius beyond the project boundaries. The results of the records search indicate that six resources have been recorded within 0.5 mile of the project area; none of which are located within the project area. In addition, 44 area-specific survey reports are on file with the SCCIC for the project area and its 0.50-mile search radius, 11 survey reports (S-00607, S-02852, S-02847, S-01656, S- 02386, S-02741, S-02890, S-02390, S-03263, S-01329, S-02314) are completely or partially within the project area indicating that the immediate area has previously been surveyed for cultural resources. **Table 3.4-1, Historical Cultural Resources within a**

0.5 Mile Radius, summarizes previously recorded cultural resources within a 0.5-mile search radius of the Proposed Project.

Table 3.4-1
Historical Cultural Resources within a 0.5 Mile Radius

Resource No.	Resource Description	Date Recorded
P-56-152817	Tanner Corner HP06 (1-3 story commercial building)	2000
P-56-153133	Fire Station No. 42 HP09 (Public utility building)	2015
P-56-153134	798 Moorpark Avenue HP06 (1-3 story commercial building)	2015

Source: SCCIC Records Search, February 26, 2020.

While not located on the Project site, the one-story commercial structure known as the Tanner Corner building, located at the northwest corner of Moorpark Avenue at High Street, is considered a valued historic resource in the City of Moorpark. The property is associated with Ira G. Tanner who lived and worked in Moorpark for over 50 years. Initially, Tanner came to Moorpark to be an automotive mechanic, but ultimately became the town's first fire chief, building and housing the equipment at his place of business (then known as Mission Garage), and organizing the squad. Mr. Tanner was a member of the Board of Trustees of the school district at the time of construction of Moorpark's first high school. He was also an active member of the Methodist Church and a trustee at the time of construction of the new church. Mr. Tanner was also manager of the local water district, retiring in 1952 after eighteen years of service in that capacity and twelve years prior experience as a member of the board of supervisors.

The Tanner Corner building was originally constructed in 1900 by a blacksmith as a barn with post and beam construction resting on a sill formed from railroad ties. The 2x6 beams were butted together and reinforced with a 1x6 beam five feet long attached to either side to secure the joint. As the building was first used by a blacksmith it probably had a dirt floor. The exterior walls were originally lumber. In 1913 Tanner acquired and improved the building with a buff-colored brick façade, an unusual color for that time period, which included parapet walls to hide the actual roof line. The property served as a gas station and automotive repair business, known as Mission Garage. The squared-off corner of the building sits at the southwest corner of High Street and Moorpark Avenue. The main entry is located in that angled wall. The entry is framed in a distinctive manner. The roof that was originally covered with shakes was reinforced in recent years with right angle trusses resting on the beams as an earthquake

safety precaution. The roof was at one time covered with metal sheeting, but recently has been redone with plywood underlayment. 30-pound felt, and roofing shingles.[1]

The Tanner Corner building was accepted for listing into the California Register of Historic Resources on November 3, 2000; because it is listed in the California Register, Tanner Corner is a historical resource as defined by CEQA. The State Historical Resources Commission found the building significant under Criteria 1, 2 and 3, for the period 1913-1953, because of its association with the events and patterns of development of Moorpark, it being one of three original commercial buildings from the early days of Moorpark, and it being the only one remaining from that time period; secondly, its association with a significant person in the development of that community; thirdly, because of its distinctive architectural characteristics as seen in the skilled masonry that have made it a local landmark; and finally, because of its high degree of integrity. This building has served as the community's first garage and first fire station, has housed the Water Department and the Justice Department, and was used as a temporary morgue when the St. Francis Dam broke in 1928. The period of historical significance is 1913 to 1953. although the building continues to be used as a commercial space. The Proposed Project would not impact the Tanner Corner building as all proposed roadway widening to High Street adjacent to the building will occur on the south side of the High Street, on City of Moorpark-owned property.

3.4.1.5 Archaeological Resources

The Phase I archaeological survey conducted within the boundaries of the entire specific plan area concluded that there is no presence of prehistoric or historic cultural resources on the property. Accordingly, the lack of prehistoric archaeological remains can be presumed to correlate with the relatively dry conditions within the study area, the apparent low density of prehistoric archaeological sites in the Moorpark region, and the tendency for such sites to cluster tightly around permanent water sources.

On February 26, 2020, an updated records search was conducted at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton for the project area and a 0.50-mile radius beyond the project boundaries. The results of the records search indicate that six resources have been recorded within 0.5 mile of the project area; none of which are located within the project area. In addition, 44 area-specific survey reports are on file with the SCCIC for the project area and its 0.50-mile search radius, 11 survey reports (S-00607, S-02852, S-02847, S-01656, S- 02386, S-02741, S-02890, S-02390, S-03263, S-01329, S-02314) are completely or partially within the project area indicating that the immediate area has previously been surveyed for cultural resources. **Table 3.4-2, Archaeological Cultural Resources**

1 Tanner Corner, 601 Moorpark Avenue, Character Defining Features Report, GPA Consulting, October 2014.

with a 0.5 Mile Radius, summarizes previously recorded archaeological cultural resources within a 0.5-mile search radius of the Proposed Project.

Table 3.4-2
Archaeological Cultural Resources within a 0.5 Mile Radius

Resource No.	Resource Description	Date Recorded
P-56-001503	CA-VEN-001503: VAM-1 AP02 (Lithic scatter)	2014
P-56-001574	CA-VEN-001574: SunCal 1 AP02 (Lithic scatter)	1998, 2014
P-56-100196	SCE MN-1 AP02 (Lithic scatter), AP15 (Habitation debris)	2007, 2008

Source: SCCIC Records Search, February 26, 2020.

Based on the records search and survey, it is evident that the property was peripheral to the prehistoric and historic habitation and use of the Moorpark region. However, given the prehistoric and historic setting of the general vicinity of the specific plan area, there is a possibility that some historical remains may be present on the site.

3.4.2 REGULATORY FRAMEWORK

Cultural resources are regulated at the federal, state, and local levels as discussed below.

3.4.2.1 Federal

National Historic Preservation Act, Section 106

The National Historic Preservation Act (NHPA) establishes the National Register of Historic Places (NRHP), and defines federal criteria for determining the historical significance of archaeological sites, historic buildings and other resources. To be determined eligible for the NRHP, a potential historic property must meet one of four historical significance criteria (listed below), and also must possess sufficient deposition, architectural, or historic integrity to retain the ability to convey the resource's historic significance. Resources determined to meet these criteria are eligible for listing in the NRHP and are termed historic properties. A resource may be eligible at the local, state, or national level of significance.

Properties are eligible for the NRHP if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and they:

A. are associated with events that have made a significant contribution to the broad patterns of our history;

B. are associated with the lives of a person or persons of significance in our past;

C. embody the distinctive characteristics of a type, period or method of construction, or represent the work of a master, or possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; or,

D. have yielded or may be likely to yield information important in prehistory or history.

These factors are known as "Criteria A, B, C, and D."

A resource that lacks integrity or does not meet one of the NRHP criteria of eligibility is not considered a historic property under federal law, and effects to such a resource are not considered significant under the NHPA. Archaeological sites are generally evaluated under Criterion D, which concerns the potential to yield information important in prehistory or history.

3.4.2.2 State Laws and Regulations

California Environmental Quality Act

Under CEQA, public agencies must consider the effects of their actions on both "historical resources" and "unique archaeological resources." Pursuant to California Public Resources Code (PRC) Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." PRC 21083.2 requires agencies to determine whether a proposed project would have an effect on "unique archaeological resources."

"Historical resource" is a term of art with a defined statutory meaning (see PRC 21084.1 and State CEQA Guidelines Sections 15064.5(a) and 15064.5(b)). The term embraces any resource listed in or determined to be eligible for listing in the California Register of Historic Resources (CRHR). The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be "historical resources" for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC 5024.1 and 14 CCR 4850). Unless a resource

listed in a survey has been demolished or has lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource potentially eligible for the CRHR.

In addition to assessing whether historical resources potentially impacted by a proposed project are listed or have been identified in a survey process, lead agencies have a responsibility to evaluate them against the CRHR criteria prior to making a finding as to a proposed project's impacts to historical resources (PRC 21084.1 and State CEQA Guidelines Section 15064.5(a)(3)). In general, a historical resource, under this approach, is defined as any object, building, structure, site, area, place, record, or manuscript that:

A. Is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California; and

B. Meets any of the following criteria:

    1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

    2. Is associated with the lives of persons important in our past;

    3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,

    4. Has yielded, or may be likely to yield, information important in prehistory or history (*State CEQA Guidelines* Section 15064.5(a)(3)).

These factors are known as "Criteria 1, 2, 3, and 4" and parallel Criteria A, B, C, and D under the NHPA (discussed earlier). The fact that a resource is not listed or determined to be eligible for listing does not preclude a lead agency from determining that it may be a historical resource (PRC 21084.1 and State CEQA Guidelines Section 15064.5(a)(4)).

CEQA also distinguishes between two classes of archaeological resources: archaeological sites that meet the definition of a historical resource, as described above, and "unique archaeological resources." Under CEQA, an archaeological resource is considered "unique" if it:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;

- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,

- Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC 21083.2(g)).

CEQA states that if a proposed project would result in an impact that might cause a substantial adverse change in the significance of a historical resource, then an EIR must be prepared and mitigation measures should be considered. A "substantial adverse change" in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (*State CEQA Guidelines* Section 15064.5(b)(1)).

The *State CEQA Guidelines* (Section 15064.5(c)) also provide specific guidance on the treatment of archaeological resources, depending on whether they meet the definition of a historical resource or a unique archaeological resource. If the site meets the definition of a unique archaeological resource, it must be treated in accordance with the provisions of PRC 21083.2.

State CEQA Guidelines Section 15126.4(b) sets forth principles relevant to means of mitigating impacts on historical resources. It provides as follows:

- Where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of the historical resource will be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995), Weeks and Grimmer, the project's impact on the historical resource shall generally be considered mitigated below a level of significance and thus is not significant.

- In some circumstances, documentation of an historical resource, by way of historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur.

- Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an EIR for a project involving such an archaeological site:

    - Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context.

Preservation may also avoid conflict with religious or cultural values of groups associated with the site.

- Preservation in place may be accomplished by, but is not limited to, the following:
  - Planning construction to avoid archaeological sites;
  - Incorporation of sites within parks, greenspace, or other open space;
  - Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site; and,
  - Deeding the site into a permanent conservation easement.
- When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation.
- Data recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center.

Section 15064.5(f) deals with potential discoveries of cultural resources during project construction. That provision states that, "[a]s part of the objectives, criteria, and procedures required by Section 21082 of the Public Resources Code, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place.

State CEQA Guidelines Section 15064.5(e), requires that excavation activities be stopped whenever human remains are uncovered, and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the NAHC must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as identified in a timely manner by the NAHC. Section 15064.5 of the *State CEQA Guidelines* directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

Senate Bill 18

Senate Bill (SB) 18 requires cities and counties to contact, and consult with California Native American tribes prior to making land use decisions. The bill requires local governments to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of general plans (defined in Government Code §65300 et seq.). For projects proposed on or after March 1, 2005, the city or county shall conduct consultations with California Native American tribes that are on the contact list maintained by the Native American Heritage Commission (NAHC) for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.995 of the Public Resources Code that are located within the city or county's jurisdiction.

The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use decisions are made by a local government.

Assembly Bill 52

AB 52, which was approved in September 2014 and became effective on July 1, 2015, requires that CEQA lead agencies consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribe. A provision of the bill, chaptered in CEQA Section 21084.2, also specifies that a project with an effect that may cause a substantial adverse change in the significance of a Tribal Cultural Resource (TCR) is a project that may have a significant effect on the environment.

Defined in Section 21074(a) of the Public Resources Code, TCRs are:

1. Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are either of the following:

    a. Included or determined to be eligible for inclusion in the CRHR; or,

    b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

TCRs are further defined under Section 21074 as follows:

a. A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and,

b. A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a TCR if it conforms with the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe(s) pursuant to newly chaptered Section 21080.3.2, or according to Section 21084.3. Section 21084.3 identifies mitigation measures that include avoidance and preservation of TCRs and treating TRCs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource. As described above, the County is consulting with two tribes regarding the project's impacts to TCRs, and appropriate mitigation, if any, for those impacts.

3.4.2.3 Local Plans and Policies

The following goals and policies of the *City of Moorpark General Plan* Land Use Element are applicable to the proposed Hitch Ranch Specific Plan project.

Goal 15: Maintain a high quality environment that contributes to and enhances the quality of life and protects public health, safety, and welfare.

Policy 15.3: Natural and cultural resources having significant educational, scientific, scenic, recreational, or social value shall be protected and preserved.

3.4.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds for determining the significance of impacts related to cultural resources, including historical resources, are contained in the environmental checklist form contained in Appendix G of the most recent update of the *CEQA Guidelines*. Impacts related to cultural resources are considered significant if the project would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Disturb any human remains, including those interred outside of dedicated cemeteries.

3.4.4 PROJECT IMPACTS

Impact CUL-1 Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.

No Impact

On February 26, 2020, an updated cultural resources records search was conducted for the project area at the SCCIC located at California State University, Fullerton. The records search radius was expanded to a 0.50-mile radius beyond the project boundaries, as is now standard practice for CEQA compliant cultural resources assessments. The current inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California Historical Resources Inventory (HRI) for Ventura County were also reviewed to determine the existence of previously documented local historical resources.

The updated records search indicated that six resources, three of which are considered historic, as opposed to archaeological cultural resources, have been recorded within 0.5 mile of the project area. One of these resources, the Tanner Corner building, is located at the northwest corner of Moorpark Avenue at High Street, discussed in detail above in section 3.4.1.4.

As discussed in the Project Description, the Proposed Project would include extending High Street through the Project site from Moorpark Avenue on the east, to Gabbert Road on the west. The High Street extension would be built as a two-lane collector roadway generally running parallel to Poindexter

Avenue, north of the Union Pacific Railroad right-of-way. This extension will provide direct access to the future Moorpark Civic Center and historic High Street east of Moorpark Avenue.

This extension would not impact the Tanner Corner building as no changes/improvements to the intersection of Moorpark Avenue and High Street would be undertaken as part of the Proposed Project.

As none of the historical resources, including Tanner Corner, identified in the search are located within the Project site and would not be affected by implementation of the Project, the Proposed Project would have no impact on historic resources.

Impact CUL-2 **Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.**

Less than Significant with Mitigation

Approximately 198.77 acres (78 percent) of the Project site would be graded under of implementation of the proposed specific plan for the construction of roadways and building foundations, and trenching for utilities and storm drains. This activity may affect cultural resources in the site, should there be any.

Two survey reports encompassing the entire project area (S-01329 and S-02314) are previous studies completed by W&S Consultants in 1994 and 2003. The results of both surveys were negative for historic or prehistoric resources; however, the report mentions that there appears to be a reasonable possibility that some historical remains may be present within the central portion of the study area.

Based on the results of the updated records search and literature review, the potential for the Proposed Project to have an adverse effect on historic or prehistoric cultural resources is considered to be moderate. There is a possibility that cultural resources may be present within the boundaries of the Specific Plan which could be discovered during ground disturbing activities. However, **Mitigation Measure CUL-1** would reduce impacts associated with accidental discovery of prehistoric or historic archaeological resources to a less than significant level.

Impact CUL-3 **Disturb any human remains, including those interred outside of dedicated cemeteries.**

Less than Significant with Mitigation

There is always the possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. In this instance, once

project-related earthmoving begins and if there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or

2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the project area in a location not subject to further subsurface disturbance:

    - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission;

    - The descendent identified fails to make a recommendation; or

    - The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

Mitigation Measure CUL-2 would ensure compliance with regulations related to accidental discovery of human remains are discovered. Along with compliance with Public Resource Code Section 5097.98, mitigation measures would reduce impacts to a less than significant level.

3.4.5 CUMULATIVE IMPACTS

Impacts upon cultural resources tend to be site specific and are assessed on a site-by-site basis. Where such resources exist, buildout of the Project site together with other development in the City and region would result in an incremental adverse impact to cultural resources. In this case, the cumulative impact would be to unknown prehistoric and historic archaeological resources, and paleontological resources. However, provided that proper mitigation, as defined by *State CEQA Guidelines* Section 15126.4(b), is

implemented in conjunction with cumulative development in the area, no significant cumulative impacts are anticipated.

3.4.6 MITIGATION PROGRAM

3.4.6.1 Mitigation Measures

CUL-1: Due to the potential that archeological resources may be present on the Project site, the City of Moorpark shall require a note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources, including prehistoric Native American artifacts. Construction personnel associated with earth moving equipment, drilling, grading, and excavating, shall be provided with basic training conducted by a qualified archaeologist, to be retained and compensated by the development team, with the approval of the City of Moorpark. Issues that shall be included in the basic training will be geared toward training the applicable construction crews in the identification of archaeological deposits, further described below. Training will include written notification of the restrictions regarding disturbance and/or removal of any portion of archaeological deposits and the procedures to follow should a resource be identified. The construction contractor, or its designee, shall be responsible for implementation of this measure. A Native American monitor shall be provided an opportunity to attend the pre-construction briefing if requested.

A Native American monitor from a consulting Tribe under AB 52 and a qualified archeologist, to be compensated by the development team, shall be available on an "on-call" basis during ground disturbing construction in native soil to review, identify and evaluate cultural resources that may be inadvertently exposed during construction.

If archaeological remains or tribal cultural resources are uncovered, all construction activities within a 100-foot radius shall be halted immediately until a qualified archaeologist, in consultation with the Native American monitor, shall evaluate whether the resource requires further study. The City shall require that the Applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. If any previously undiscovered resources are found during construction the City of Moorpark Community Development Department shall be contacted, and the resource shall be evaluated for significance in terms of CEQA criteria by a qualified archaeologist. Prehistoric archaeological site indicators include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing

implements (e.g., slabs and handstones, and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire-affected stones. Historic period site indicators generally include but are not limited to: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps). If City and the qualified archaeologist determine the resource to be significant under CEQA, they shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. Contingency funding and a time allotment sufficient for recovering an archeological sample or to employ an avoidance measure may be required. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a formal Archaeological Monitoring Plan (AMP) which will include a research design and archaeological data recovery plan for the resource. Development and implementation of the AMP will be determined by the City of Moorpark and treatment of any significant cultural resources shall be undertaken with the approval of the project applicant, and the City. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System [CHRIS]), and provide for the permanent curation of the recovered materials. The City of Moorpark and/or development team shall, in good faith, consult with the Fernandeño Tataviam Band of Mission Indians and consulting Tribes on the disposition and treatment of any recovered materials. A Monitoring Closure Report shall be filed with the City of Moorpark at the conclusion of ground disturbing construction if archaeological resources were encountered and/or recovered. After the find has been appropriately mitigated (as defined by *State CEQA Guidelines* Section 15126.4(b)), work in the area may resume.

Timing/Implementation: During ground disturbing construction activities

Enforcement/Monitoring: City of Moorpark Community Development Department, and the development team retained qualified archaeologist

CUL-2: If human remains or funerary objects are unearthed during any activities associated with the project, *State Health and Safety Code* Section 7050.5 requires that no further disturbance shall occur within a 100-foot buffer of the find until the County coroner has made the necessary findings as to origin and disposition pursuant to *Public Resources Code* Section 5097.98. If the remains are determined to be of Native American descent, the coroner has

24 hours to notify the Native American Heritage Commission (NAHC), the Fernandeño Tataviam Band of Mission Indians, and consulting Tribes. The NAHC will then contact the deceased Native American's most likely descendant, who will then serve as consultant on how to proceed with the remains (i.e., avoid, rebury).

Timing/Implementation: During ground disturbing construction activities

Enforcement/Monitoring: City of Moorpark Community Development Department, and the development team retained qualified archaeologist

3.4.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of recommended mitigation measures would reduce the potential direct project-specific impacts to archaeological resources, Native American artifacts, and previously unknown buried human remains to a less than significant level.

3.5 ENERGY

INTRODUCTION

This section evaluates potential impacts associated with energy consumption and demand that would result from the implementation of the proposed Specific Plan (Proposed Project, Project). The section also provides a description of the regulatory framework governing the management of energy on a federal, state, regional, and local level. Project impacts on energy consumption and demand as well as related mitigation measures have also been provided.

3.5.1 EXISTING CONDITIONS

3.5.1.1 Electrical Service

Southern California Edison (SCE) provides electricity service to all of Ventura County including the City of Moorpark. Peak demand in the service area is about 19,750 megawatts. Due to the deregulation of the electrical energy market, electricity may be generated by and purchased from any electric generator connected to the electric grid that spans throughout western North America.[1]

Electrical service to the City of Moorpark and the Specific Plan area are provided by 11 SCE high-voltage overhead electrical lines in two separate easements. The westernmost easement carries four 220-kV lines. These lines, referred to as the "Moorpark-Ormond Beach 220-kV lines," run north out of the Moorpark Substation, which is located south of the Project site, onto the Project site, and make a 90-degree turn to the west. These four 220-kV lines carry current three months a year during peak use in the summer months. For the remainder of the year, the lines carry no current. Overall, these lines carry approximately 750 amperes per circuit when in use.[2]

A second easement, located to the east of the Moorpark-Ormond Beach easement, also travels north out of the Moorpark Substation, crossing the Project site in a north-south direction. Seven lines are located within this easement. The lines (from east to west) include the Gabbert 16-kV line; the Saugus-Moorpark-Santa Susana-Torrey 66-kV line; the Moorpark-Pardee No. 3, 2, and 1 220-kV lines; and the Moorpark-Santa Clara No. 1 and No. 2 220-kV lines. These seven circuits are in operation throughout the year; however, line loads do change based on user needs. During the summer months, when electricity demand is the greatest, line loads would be the highest, ranging from 135 amperes on the Gabbert 16-kV

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1 U.S. Energy Information Administration, https://www.eia.gov/energyexplained/electricity/delivery-to-consumers.php , accessed July 5, 2021.

2 Moorpark-Newbury 66 kV Subtransmission Line Project EIR, Project Description, https://www.cpuc.ca.gov/Environment/info/esa/moorpark_newbury/deir/c03-project_description_moorpark.pdf, accessed July 3, 2021.

line, to 340 amperes on the Moorpark-Pardee 220-kV lines. Conversely, during the winter months when electricity demand is lower, line loads will be reduced.[3]

3.5.1.2 Natural Gas

The Southern California Gas Company (SoCal Gas) provides natural gas service to the County of Ventura, including the City of Moorpark. The availability of natural gas is based upon recent conditions of gas supply and regulatory policies. As a public utility, SoCal Gas is under the jurisdiction of the California Public Utilities Commission and can be affected by actions of gas supply or the condition under which service is available. Gas service will be provided in accordance with any revised conditions. The regional gas supply is primarily from Texas via the El Paso Gas Company's pipeline to Southern California.

Natural gas is provided to the Specific Plan area from a 4-inch, medium-pressure main in Moorpark Road. Currently, no significant natural gas consumption occurs on the Specific Plan site.

3.5.2 REGULATORY FRAMEWORK

3.5.2.1 Federal

Energy Policy and Conservation Act

Enacted in 1975, this legislation established fuel economy standards for new light-duty vehicles sold in the U.S. The law placed responsibility on the National Highway Traffic and Safety Administration (a part of the U.S. Department of Transportation) for establishing and regularly updating vehicle standards. The U.S. Environmental Protection Agency (US EPA) administers the Corporate Average Fuel Economy (CAFE) program, which determines vehicle manufacturers' compliance with existing fuel economy standards. Since the inception of the CAFE program, the average fuel economy for new light-duty vehicles (autos, pickups, vans, and SUVs) steadily increased from 13.1 miles per gallon (mpg) for the 1975 model year to 27.5 mpg for the 2012 model year and is proposed to increase to 54.5 by 2025.

Construction Equipment Fuel Efficiency Standard

US EPA sets emission standards for construction equipment. The first federal standards (Tier 1) were adopted in 1994 for all off-road engines over 50 horsepower (hp) and were phased in by 2000. A new standard was adopted in 1998 that introduced Tier 1 for all equipment below 50 hp and established the

[3] Moorpark-Newbury 66 kV Subtransmission Line Project EIR, Project Description, https://www.cpuc.ca.gov/Environment/info/esa/moorpark_newbury/deir/c03-project_description_moorpark.pdf, accessed July 3, 2021.

Tier 2 and Tier 3 standards. The Tier 2 and Tier 3 standards were phased in by 2008 for all equipment. The current iteration of emissions standards for construction equipment are the Tier 4 efficiency requirements are contained in 40 Code of Federal Regulations Parts 1039, 1065, and 1068 (originally adopted in 69 Federal Register 38958 [June 29, 2004], and most recently updated in 2014 [79 Federal Register 46356]). Emissions requirements for new off-road Tier 4 vehicles were to be completely phased in by the end of 2015.

Energy Policy Act

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

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 was designed to improve vehicle fuel economy and help reduce nationwide dependence on foreign oil. It expands the production of renewable fuels, reducing dependence on oil, and confronting global climate change. Specifically, it increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard by requiring fuel producers to use at least 36 billion gallons of biofuel in 2022 and reduces U.S. demand for oil by setting a national fuel economy standard of 35 mpg by 2020. The Act also set energy efficiency standards for lighting (specifically light bulbs) and appliances. Development would also be required to install photosensors and energy-efficient lighting fixtures consistent with the requirements of 42 USC Section 17001 et seq.

U.S. Executive Order (EO) 13693 (Energy Independence and Security Act Expansion)

In March 2015, EO 13693 Planning for Federal Sustainability in the Next Decade was signed into action. The goal of this EO is to expand on the Energy Independence and Security Act of 2007 and maintain federal leadership in sustainability and GHG emission reductions. The EO includes the following goals related to energy:

- 25 percent reduction in energy use intensity (2015 baseline).
- 30 percent of electricity supply from renewable energy by 2025.
- 25 percent of total building energy (electric and alternative energy) from renewable energy by 2025.

Energy Star Program

In 1992, the U.S. EPA introduced Energy Star as a voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. The program applies to major household appliances, lighting, computers, and building components such as windows, doors, roofs, and heating and cooling systems. Under this program, appliances that meet specifications for maximum energy use established under the program are certified to display the Energy Star label. In 1996, US EPA joined with the Energy Department to expand the program, which now also includes qualifying commercial and industrial buildings, and homes.

3.5.2.2 State

California Energy Action Plan (Increase Efficient Use of Fuel Supplies)

The CEC, in collaboration with CPUC, is responsible for preparing the California Energy Action Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and maintenance of a healthy economy. The 2003 Energy Action Plan calls for the State to assist in transformation of the transportation system to improve air quality, reduce congestion, and increase efficient use of fuel supplies with the least environmental and energy costs. The Energy Action Plan identifies strategies including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, and encourages urban designs that reduce VMT and accommodate pedestrian and bicycle access. In the 2005 Energy Action Plan, the CEC and CPUC updated the energy policy vision by adding dimensions to the policy areas, such as information on the emerging importance of climate change, transportation-related energy issues, and research and development activities. The CEC adopted an update to the 2005 Energy Action Plan in 2008 that supplements the earlier Energy Action Plans and examines the State's ongoing actions in the context of global climate change.

California Code of Regulations Title 24, Part 6 (Energy Efficiency Standards)

Title 24, Part 6, of the California Code of Regulations contains the CEC's Energy Efficiency Standards for Residential and Nonresidential Buildings. Title 24 was first established in 1978, in response to a

legislative mandate to reduce California's energy consumption. Since that time, Title 24 has been updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

On April 23, 2008, the CEC adopted the 2008 standards, which applied to projects that submitted an application for a building permit on or after January 1, 2010. The CEC adopted the 2008 standards for a number of reasons: (1) to provide California with an adequate, reasonably priced, and environmentally sound supply of energy; (2) to respond to Assembly Bill 32 (AB 32; the Global Warming Solutions Act of 2006), which requires California to reduce its greenhouse gas emissions to 1990 levels by 2020; (3) to pursue the statewide policy that energy efficiency is the resource of choice for meeting California's energy needs; (4) to act on the findings of California's Integrated Energy Policy Report, which indicate that the 2008 Standards are the most cost-effective means to achieve energy efficiency, reduce the energy demand associated with water supply, and reduce greenhouse gas emissions; (5) to meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures in the update of all state building codes; and (6) to meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards. The CEC updates the standards every three years.

The 2019 Building Energy Efficiency Standards improve upon the 2016 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Buildings whose permit applications are dated on or after January 1, 2020, must comply with the 2019 Standards.[4] Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards, and residential homes will be 7 percent more energy efficient. When accounting for the electricity generated by the solar photovoltaic system, residences would use 53 percent less energy compared to homes built to the 2016 standards. The 2019 Standards move toward cutting energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multi-family buildings of three stories and less. The 2019 Standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements. Under the 2019 Standards, nonresidential buildings will be 30 percent more energy-efficient compared to the 2016 Standards, and single-family homes will be seven percent more energy-efficient. When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards.

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4 California Energy Commission website, https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency, accessed July 21, 2021.

California Code of Regulations Title 24, Part 11 (Green Building Standards Code)

The California Green Building Standards Code, which is Part 11 of the Title 24 Building Standards Code, is commonly referred to as the CALGreen Code. The 2019 CALGreen Code is a code with mandatory requirements for new residential and nonresidential buildings (including buildings for retail, office, public schools, and hospitals) throughout California beginning on January 1, 2014. The 2013 CALGreen Code contained requirements for construction site selection, stormwater control during construction, construction solid waste reduction, indoor water use reduction, building material selection, natural resource conservation, site irrigation conservation, and more. Additionally, this code encourages buildings to achieve exemplary performance in the area of energy efficiency. For the purposes of energy efficiency standards, the CEC believes a green building should achieve at least a 15 percent reduction in energy usage when compared to California's mandatory energy efficiency standards. The updated 2019 CALGreen Code became effective January 1, 2020 and includes new requirements for additions to existing residential and non-residential development.

The mandatory standards require:

- 20 percent reduction in indoor water use relative to specified baseline levels;
- 50 percent construction/demolition waste diverted from landfills;
- Inspections of energy systems to ensure optimal working efficiency;
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards;
- Dedicated circuitry to facilitate installation of EV charging stations in newly constructed attached garages for single-family and duplex dwellings; and
- Installation of EV charging stations at least three percent of the parking spaces for all new multi-family developments with 17 or more units.

Senate Bills 350 and 100

The California Renewables Portfolio Standard (RPS) program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources. In the 2015 legislative session, the Legislature passed, and the Governor signed, Senate Bill 350 (SB 350), the Clean Energy and Pollution Reduction Act. The legislation requires that, by 2030, 50 percent of all electricity generated and sold to retail customers must be from renewable sources. SB 350

further requires the CEC to establish annual targets for statewide energy efficiency savings and demand reduction that would achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas by retail customers by 2030. The bill requires the Public Utilities Commission (PUC) to establish efficiency targets for investor-owned electrical and gas corporations consistent with the 2030 goal, and the CEC to establish annual targets for energy efficiency savings and demand reductions for local publicly-owned electric utilities consistent with the 2030 goal. Each retailer of electricity must regularly file an integrated resource plan (IRP) for review and approval.

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the State's RPS Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 44 percent by 2024, 60 percent by 2030, and 100 percent by 2045.

Other Energy Related Statutes and Executive Orders

Additional State legislation and executive orders focused on energy efficiency and renewable energy are highlighted briefly below:

- Senate Bill 107: This legislation, which addresses California's Renewables Portfolio Standard (RPS), requires retail sellers of electricity to procure 20 percent of retail sales from renewable energy by 2010.

- Assembly Bill 1613: This legislation, also known as the Waste Heat and Carbon Emissions Reduction Act, was designed to encourage the development of new combined heat and power systems in California with a generating capacity of up to 20 megawatts (MW).

- Senate Bill 1: This legislation enacted the Governor's Million Solar Roofs program and has an overall objective of installing 3,000 MW of solar photovoltaic systems.

- Senate Bill 1389: This legislation requires the California Energy Commission to prepare a biennial integrated energy policy report that contains an assessment of major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety.

- Executive Order S-06-06: This order directs State agencies to work together to advance biomass energy programs in California while providing environmental protection and mitigation and established the following targets for the use and production of biofuels and biopower: produce a minimum of 40 percent of its biofuels in California by 2020 and 75 percent by 2050.

- Executive Order B-18-12: This order directs state agencies to reduce their grid-based energy purchases by at least 20 percent by 2018, as compared to a 2003 baseline.

- Executive Order B-48-18: This order will boost the use of zero-emission vehicles (ZEVs), electric vehicle charging infrastructure, and hydrogen refueling infrastructure in California in order to implement Governor Brown's target of 5 million ZEVs on the road by 2030 and 250,000 vehicle charging stations and 200 hydrogen refueling stations by 2015.

3.5.2.3 Local

The following goals and policies of the *City of Moorpark General Plan* are applicable to the proposed Hitch Ranch Specific Plan project.

Land Use Element

Goal 12: Ensure that a full range of public facilities and services are provided to meet the needs of the community.

Policy 12.1: Development shall be permitted only when adequate public facilities and services are available or will be provided when needed.

Policy 12.2: Efficient and equitable delivery of urban services shall be ensured by the development of capital improvement plans for urban services which 1) identify existing and future (general plan buildout) needs; 2) establish a phasing plan for providing new urban services that commensurate with needs generated by existing and future development; and 3) assure that financing is available to provide adequate necessary facilities and services prior to approval of any project which would exceed the capacity or significantly reduce the quality of existing services.

Policy 12.7: Where feasible, shared use programs between public and private service and facility providers shall be encouraged.

Policy 12.8: Any proposed project shall be required to contribute its fair share of the cost of providing adequate public services and facilities.

Goal 15: Maintain a high-quality environment that contributes to and enhances the quality of life and protects public health, safety and welfare.

Policy 17.8: Undergrounding of utilities shall be required in conjunction with development projects whenever feasible.

3.5.3 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *State CEQA Guidelines* (Environmental Checklist Form), a project could have a significant impact when it would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.5.4 METHODOLOGY

The analysis in this section focuses on the nature and magnitude of the change in energy resources due to construction and operation of the Proposed Project. To address the significance thresholds, the focus of this analysis is related to energy efficiency within the context of existing regulatory environment. The methodology used to estimate the construction phase energy use is described in **Impact EN-1** below.

With respect to energy consumption during occupancy/operation, the increased electricity and natural gas demand due to operation/occupancy of the Proposed Project were estimated using the CalEEMod emissions model (refer to **Appendix 3.2-A**). In addition, as the Proposed Project would result in daily vehicle trips to and from the Project site, due to typical residential commutes, the increase in the consumption of petroleum-based fuel was calculated for the Proposed Project based on vehicle miles traveled (VMT) associated with the Proposed Project and estimated in the traffic analysis.

3.5.4 PROJECT IMPACTS

Impact ENR-1 **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.**

Less than Significant with Mitigation

Construction

Project construction would require grading, building construction, and paving in five project phases. All construction would be typical for the region and the nature of construction activity. During construction of the Proposed Project, energy would be consumed in the form of petroleum-based fuels used to power

off-road construction vehicles and equipment on the Project site, construction worker travel to and from the Project site as well as delivery truck trips; and to operate generators to provide temporary power for lighting and electronic equipment. The manufacturing of construction materials used by the Proposed Project would also involve energy use. Due to the large number of materials and manufacturers involved in the production of construction materials (including manufacturers in other states and countries), upstream energy use cannot be reasonably estimated. However, it is reasonable to assume that manufacturers of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business. Furthermore, neither the City nor the Applicant has control over or the ability to influence energy resource use by the manufacturers of construction materials. Therefore, this analysis does not evaluate upstream energy use.

Petroleum-based Fuel

The average monthly and total consumption of gasoline and diesel fuel during project construction was estimated using the same assumptions and factors from CalEEMod that were used in estimating construction air emissions, see **Section 4.2 Air Quality**, and **Appendix 3.2-A**. As shown in **Table 3.5-1, Off-Road Construction Equipment Diesel Fuel Consumption** and **Table 3.5-2, Construction Trip Fuel Consumption**, a total of approximately 281,916 gallons of diesel fuel, and 91,093 gallons of gasoline would be consumed over the project's construction horizon of approximately 5-years, or approximately 4,699 gallons of diesel fuel, and 1,518 gallons of gasoline per month.

Table 3.5-1
Off-Road Construction Diesel Fuel Consumption

Phase	Equipment Type	Units	Hours	Horse Power	Load Factor	Number of Days	Fuel Usage/HP/hr	Diesel Usage (in gallons)
Grading	Excavators	2	8	158	0.38	218	0.05	10,471
	Graders	1	8	187	0.41	218	0.05	6,686
	Rubber Tired Dozers	1	8	247	0.40	218	0.05	8,615
	Scrapers	2	8	367	0.48	218	0.05	30,722
	Tractors/Loaders/Backhoes	2	8	97	0.37	218	0.05	6,259
Paving	Pavers	2	8	130	0.42	72	0.05	3,145
	Paving Equipment	2	8	132	0.36	72	0.05	2,737
	Rollers	2	8	80	0.38	72	0.05	1,751
Grading P2	Excavators	2	8	158	0.38	5	0.05	240
	Graders	1	8	187	0.41	5	0.05	153
	Rubber Tired Dozers	1	8	247	0.40	5	0.05	198
	Scrapers	2	8	367	0.48	5	0.05	705

Phase	Equipment Type	Units	Hours	Horse Power	Load Factor	Number of Days	Fuel Usage/HP/hr	Diesel Usage (in gallons)
	Tractors/Loaders/Backhoes	2	8	97	0.37	5	0.05	144
Building Construction P2	Cranes	1	7	231	0.29	367	0.05	8,605
	Forklifts	3	8	89	0.20	367	0.05	7,839
	Generator Sets	1	8	84	0.74	367	0.05	9,125
	Tractors/Loaders/Backhoes	3	7	97	0.37	367	0.05	13,830
	Welders	1	8	46	0.45	367	0.05	3,039
Architectural Coating P2	Air Compressors	1	6	78	0.48	20	0.05	225
Grading P3	Excavators	2	8	158	0.38	86	0.05	4,131
	Graders	1	8	187	0.41	86	0.05	2,637
	Rubber Tired Dozers	1	8	247	0.40	86	0.05	3,399
	Scrapers	2	8	367	0.48	86	0.05	12,120
	Tractors/Loaders/Backhoes	2	8	97	0.37	86	0.05	2,469
Utilities P3	Cranes	1	7	231	0.29	88	0.05	2,063
	Forklifts	3	8	89	0.20	88	0.05	1,880
	Generator Sets	1	8	84	0.74	88	0.05	2,188
	Tractors/Loaders/Backhoes	3	7	97	0.37	88	0.05	3,316
	Welders	1	8	46	0.45	88	0.05	729
Paving P3	Pavers	2	8	130	0.42	87	0.05	3,800
	Paving Equipment	2	8	132	0.36	87	0.05	3,307
	Rollers	2	8	80	0.38	87	0.05	2,116
Grading P4	Excavators	2	8	158	0.38	6	0.05	288
	Graders	1	8	187	0.41	6	0.05	184
	Rubber Tired Dozers	1	8	247	0.40	6	0.05	237
	Scrapers	2	8	367	0.48	6	0.05	846
	Tractors/Loaders/Backhoes	2	8	97	0.37	6	0.05	172
Building Construction 4	Cranes	1	7	231	0.29	234	0.05	5,486
	Forklifts	3	8	89	0.20	234	0.05	4,998
	Generator Sets	1	8	84	0.74	234	0.05	5,818
	Tractors/Loaders/Backhoes	3	7	97	0.37	234	0.05	8,818
	Welders	1	8	46	0.45	234	0.05	1,938
Architectural Coating P4	Air Compressors	1	6	78	0.48	20	0.05	225
Grading P5	Excavators	2	8	158	0.38	6	0.05	288
	Graders	1	8	187	0.41	6	0.05	184
	Rubber Tired Dozers	1	8	247	0.40	6	0.05	237
	Scrapers	2	8	367	0.48	6	0.05	846
	Tractors/Loaders/Backhoes	2	8	97	0.37	6	0.05	172
Building Construction 5	Cranes	1	7	231	0.29	234	0.05	5,486
	Forklifts	3	8	89	0.20	234	0.05	4,998

Phase	Equipment Type	Units	Hours	Horse Power	Load Factor	Number of Days	Fuel Usage/HP/hr	Diesel Usage (in gallons)
	Generator Sets	1	8	84	0.74	234	0.05	5,818
	Tractors/Loaders/Backhoes	3	7	97	0.37	234	0.05	8,818
	Welders	1	8	46	0.45	234	0.05	1,938
Architectural Coating P5	Air Compressors	1	6	78	0.48	21	0.05	236
Grading P6	Excavators	2	8	158	0.38	4	0.05	192
	Graders	1	8	187	0.41	4	0.05	123
	Rubber Tired Dozers	1	8	247	0.40	4	0.05	158
	Scrapers	2	8	367	0.48	4	0.05	564
	Tractors/Loaders/Backhoes	2	8	97	0.37	4	0.05	115
Building Construction P6	Cranes	1	7	231	0.29	115	0.05	2,696
	Forklifts	3	8	89	0.20	115	0.05	2,456
	Generator Sets	1	8	84	0.74	115	0.05	2,859
	Tractors/Loaders/Backhoes	3	7	97	0.37	115	0.05	4,334
	Welders	1	8	46	0.45	115	0.05	952
Architectural Coating P6	Air Compressors	1	6	78	0.48	11	0.05	124
							Total Diesel Consumption	***231,248***

Source: CalEEMod Model Data, Rincon Consultants, Inc. December 2021. Appendix 3.2-A.

Table 3.5-2
Construction Trip Fuel Consumption

Phase	Number of Trips	Number of Days	Average Commute Distance (in miles)	Fuel Usage (mpg)[a, b]	Gasoline/Diesel Usage (in gallons)
Worker Trips (Gasoline)					
Grading	20	218	10.8	22.3	2,112
Paving	15	72	10.8	22.3	523
Grading P2	20	5	10.8	22.3	48
Building Construction P2	170	367	10.8	22.3	30,216
Architectural Coating P2	34	20	10.8	22.3	329
Grading P3	20	86	10.8	22.3	833
Paving P3	15	88	10.8	22.3	639
Utilities P3	514	87	10.8	22.3	21,657
Grading P4	20	6	10.8	22.3	58
Building Construction P4	136	234	10.8	22.3	15,413
Architectural Coating P4	27	20	10.8	22.3	262
Grading P5	20	6	10.8	22.3	58

Building Construction P5	136	234	10.8	22.3	15,413
Architectural Coating P5	27	21	10.8	22.3	275
Grading P6	20	4	10.8	22.3	39
Building Construction P6	71	115	10.8	22.3	3,954
Architectural Coating	14	11	10.8	22.3	75
Total Gasoline Usage					**91,093**
Vendor Trips (Diesel)					
Building Construction P2	43	367	7.3	6.5	17,723
Utilities P3	129	88	7.3	6.5	12,749
Building Construction P4	34	234	7.3	6.5	8,935
Building Construction P5	34	234	7.3	6.5	8,935
Building Construction P6	18	115	7.3	6.5	2,325
Total Diesel Usage					**50,668**

Source: CalEEMod Model Data, Rincon Consultants, Inc., December 2021. Appendix 3.2-A.
[a] Bureau of Transportation Statistics. Average Fuel Efficiency of U.S. Light Duty Vehicles. Available at: https://www.bts.gov /content/average-fuel-efficiency-us-light-duty-vehicles, accessed October 1, 2019.
[b] Rentar Fuel Catalyst. Here Are the Diesel Truck Miles Per Gallon (MPG). Available online at: https://rentar.com/diesel-truck-miles-per-gallon-mpg/, accessed October 1, 2019.
Notes: Average worker trip fuel usage from the year 2016, since construction is from 2021 to 2026, these emission estimates are conservative.

The estimated quantity of gasoline and diesel fuel would be approximately 4,699 gallons of diesel fuel, and 1,518 gallons of gasoline per month, over the 60 months of construction modeled within CalEEMod. Project construction would comply with the VCAPCD's *Air Quality Assessment Guidelines* to minimize fugitive dust, ROG, and NOx emissions including limiting traffic speed on site and vehicle idling time, refer to **Section 3.2, Air Quality, VCAPCD Construction Control Measures CM AQ-1** and **AQ-2**, and **Construction Mitigation Measure MM AQ-2**. This would in turn reduce construction energy consumption.

In addition, the Proposed Project would utilize sustainable materials and recycled content that would reduce construction-related energy consumption associated with materials production. Construction materials would include recycled materials and products originating from nearby sources to the extent feasible in order to comply with CALGreen and to reduce costs and fuel use related to transportation of materials.

Further, all grading (cut and fill) would be balanced on-site, eliminating the need for any haul trucks to remove or supply soil to the Project site. The project also would not require any demolition as the site is currently undeveloped. The project would also use, at a minimum, U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent, refer to **Section 3.2, Air Quality, Construction Mitigation Measure MM AQ-2.** Idling restrictions and the use of newer engines and properly maintained equipment would result in less fuel combustion and energy consumption. Therefore, petroleum-based fuel use

during construction is not considered to be wasteful, inefficient, or unnecessary. Furthermore, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of fuel use during construction.

Electricity

Electrical energy would be consumed on a temporary basis during construction of the Specific Plan. The energy would serve construction trailers, power tools, tool sheds, work and storage areas, and other facilities associated with construction activity. Construction activity is not expected to consume significant amounts of energy due to the temporary nature of these activities. Therefore, electrical use during construction is not considered to be wasteful, inefficient, or unnecessary.

Natural Gas

Due to the nature of construction activities, natural gas use would not be required. Some natural gas may be consumed during the installation and upgrade of natural gas distribution lines at the site. However, the amount of natural gas consumed during this process would be negligible. Therefore, electrical use during construction is not considered to be wasteful, inefficient, or unnecessary. As such, the Proposed Project's construction energy consumption would not be inefficient, wasteful, and unnecessary, and the impact would be less than significant with mitigation.

Operation

Petroleum-based Fuel

The Proposed Project would result in the consumption of petroleum-fuel related to vehicular travel (quantified as vehicle miles traveled (VMT)) to and from the Project site. **Table 3.5-3, Estimated Petroleum-based Fuel Usage at Buildout**, below, presents the projected Project consumption of approximately 71,151 gallons of diesel and 464,710 gallons of gasoline per year, or a total of 535,860 gallons of petroleum-based fuels per year based on an annual estimate of 33,585 daily VMT, **see Section 3.15 Transportation**.

Table 3.5-3
Estimated Petroleum-based Fuel Usage at Project Buildout

Source	Fleet Mix[a]	Generation Factor[b]	Annual Consumption (in gallons)
Mobile			
Diesel (gallons)	16.6%	33,585/28.6 mpg	71,151
Gasoline (gallons)	83.4%	33,585/22 mpg	464,710
		Total	**535,860**

Source: Rincon Consulting, Inc., August 2021.
Notes:
mpg = miles per gallon
a Data Source: FHWA OHPI, Highway Statistics, Fuel Consumption by State and Type http://www.fhwa.dot.gov/policyinformation/pubs/hf/pl11028/chapter5.cfm
b Bureau of Transportation Statistics. Average Fuel Efficiency of U.S. Light Duty Vehicles. Available at: https://www.bts.gov/content /average-fuel-efficiency-us-light-duty-vehicles, accessed October 1, 2019c Diesel-powered vehicles typically get 30-35% more miles per gallon than comparable vehicles powered by gasoline. US Department of Energy, Fuel Economy Guide, http://www.fueleconomy.gov/feg /pdfs/guides/FEG2013.pdf.

As shown in **Table 3.5-3**, project operation would result in a demand of 71,151 gallons of diesel and 464,710 gallons of gasoline per year. This is a conservative estimate, given that it assumes no electric, hybrid, or other alternative fuel use vehicles in the fleet mix. Furthermore, this level of annual consumption is based on 2016 fuel efficiency rates (miles per gallon). Federal and state laws and regulations will continue to require further improvements in fuel efficiency in motor vehicles produced and/or sold in the US and the total annual consumption of petroleum-based fuel is expected to decrease over time. Furthermore, as the residents replace their older model cars, more efficient cars will take their place, further reducing the total petroleum-based fuel consumption in the future years of project operations. As a result, **Table 3.5-3** represents a high-end estimate of fuel use. Therefore, petroleum-based fuel use during operation is not considered to be wasteful, inefficient, or unnecessary.

Electricity and Natural Gas

According to the CalEEMod estimates, once fully operational, the project would result in a demand of approximately 14,106 million British Thermal Units per year (mBTU/year) of natural gas and up to 4,631,905 kilowatt hours per year (kWh/year), or 4.6 gigawatt hours per year (GWh/year), of electricity.

The project would be required to comply with the 2019 California Building Energy Efficiency Standards and the California Green Building Standards Code (CALGreen) under Title 24. The 2019 iteration of Title 24 went into effect January 1, 2020 and represents the state policy on building energy efficiency. The goals of the Title 24 standards are to improve energy efficiency of residential and non-residential buildings,

minimize impacts during peak energy-usage periods, and reduce impacts on state energy needs. In accordance with Section 150.1(b)14 of the 2019 Building Energy Efficiency Standards, all new residential uses of three stories or less would install solar photovoltaic (PV) panels that generate an amount of electricity equal to their expected electricity usage. In addition, although not required by Title 24, the project would include a rooftop solar system sized at approximately 112 kilowatts for the proposed four-story building that would accommodate the electricity needs of the approximately 135 affordable apartment units. As a result, the majority of the project's electricity usage would be supplied by on-site solar PV panels. Therefore, the proposed project would include sustainability measures to minimize nonrenewable energy use and electricity use. Moreover, **Mitigation Measure E-2** will require the Applicant to affirm provisions of natural gas and electricity to the Proposed Project from SoCal Gas and SCE. As such, the proposed project's operational energy consumption would not be inefficient, wasteful, and unnecessary, and the impact would be less than significant with mitigation.

Impact ENR-2 **Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.**

Less than Significant

Renewable Energy

Electricity for the Proposed Project would be provided by SCE. As a publicly owned utility, SCE is required to comply with Senate Bills 350 and 100, which require utility companies to provide 33 percent renewable energy by the end of 2020, 60 percent renewable energy by 2030, and 100 percent by 2045. The Proposed Project would further reduce its use of nonrenewable energy resources as the electricity generated by renewable resources provided by SCE continues to increase to comply with State requirements through SB 100. Since the project would become operational in 2026, it can be assumed that over a third of the electricity provided by SCE to the Project site would be from renewable sources. Moreover, the project would supply the majority of on-site electrical demand through the use of solar PV systems in accordance with the requirement of Section 150.1(b)14 of the 2019 Building Energy Efficiency Standards to install solar PV panels that generate an amount of electricity equal to their expected electricity usage on all new residential uses three stories or less and the proposed rooftop solar system sized at approximately 112 kilowatts for the proposed four-story building.

Because the Proposed Project would be powered by a combination of project-specific solar photovoltaic-generated electricity and the State electricity grid, it would be powered by renewable energy as mandated by Senate Bills 350 and 100.

Energy Efficiency

As stated above, the Proposed Project would comply with all building design standards set in CBC Title 24. CALGreen Code (CBC Title 24, Part 11) requires implementation of energy efficient light fixtures and building materials into the design of new construction project, and the State Building Energy Efficiency Standards (CBC Title 24, Part 6) require newly constructed buildings to meet energy performance standards set by the CEC. These standards are specifically crafted for new buildings to result in energy efficient performance, so that the buildings do not result in inefficient consumption of energy. The standards are updated every three years and each iteration is more energy efficient than the previous standards. The Proposed Project buildings would comply with the latest energy efficiency standards pursuant to CALGreen Code and State Building Energy Efficiency Standards.

Federal and State California Corporate Average Fuel Economy (CAFÉ) standards were first created in 1975 in order to reduce energy consumption by increasing the fuel economy of cars and light trucks by creating fleet-wide averages. All vehicles within the state are subject to this regulation. Therefore, vehicles related to both the construction and operation of the Proposed Project would be in compliance with the CAFÉ standards.

Therefore, the Proposed Project would not conflict with applicable plans related to renewable energy or energy efficiency, and this impact would be less than significant.

3.5.5 CUMULATIVE IMPACTS

All cumulative projects, including the Proposed Project, would be required to comply with CBC Title 24 minimum 2019 Building Energy Efficiency standards (CBC Title 24, Part 6) and CALGreen Code requirements (CBC Title 24, Part 11). Cumulative buildings would be designed in accordance with these minimum State energy efficiency standards for residential and nonresidential buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting. The incorporation of CBC Title 24 standards into the design of the cumulative projects, including the Proposed Project, would not result in wasteful, inefficient, or unnecessary use of energy. As determined, with implementation of Mitigation Measure VCAPCD Construction Control Measures **CM AQ-1** and **CM AQ-2**, Construction Mitigation Measure **MM AQ-2**, the Proposed Project would not contribute to a significant environmental impact related to the wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, the Proposed Project, in conjunction with other existing, planned, and foreseeable future projects, would be cumulatively less than significant with mitigation incorporated related to energy use and be consistent with applicable increased energy efficiency and increased renewable energy use plans.

3.5.6 MITIGATION PROGRAM

3.5.6.1 Standard Conditions and Regulatory Requirements

- Prior to issuance of each building permit, the Project Applicant shall submit plans to the City Building Official demonstrating that each of the project's buildings will comply with the State Energy Conservation Standards for New Residential and Nonresidential Buildings (Title 24, Part 6, Article 2, *California Administrative Code*). *City of Moorpark*

- Prior to recordation of final maps, the Project Applicant shall provide to the City of Moorpark Public Works Department, "will-serve" letters from Southern California Gas Company and Southern California Edison, which affirm provision of natural gas and electricity to the Proposed Project. *City of Moorpark*

3.5.6.2 Mitigation Measures

Impacts related to the wasteful, inefficient, or unnecessary consumption of Petroleum-Based Fuel during construction would be mitigated with the implementation of **VCAPCD Construction Control Measures CM AQ-1** and **CM AQ-2**, and **Construction Mitigation Measure MM AQ-2**.

3.5.7 Level of Significance After Mitigation

Project specific and cumulative residual impacts would be less than significant.

3.6 GEOLOGY AND SOILS

INTRODUCTION

The purpose of this section is to identify the existing geologic setting of the Project site and vicinity, analyze potential impacts with respect to geology and soils that would result from the project, and develop mitigation measures to reduce potentially significant impacts. The geotechnical considerations associated with the Proposed Project include hazards that could result from Project construction and design, and naturally occurring geologic hazards. Background information and analysis presented in this section are based in part on review of the project geotechnical feasibility study conducted by Albus-Keefe and Associates, Inc., in 2019 (AKAI 2019 included as ***Appendix 3.6-A****), the "Updated" Geologic Assessment of Surface Fault Rupture Potential conducted by Albus-Keefe & Associates, Inc. (AKAI 2020 included as* ***Appendix 3.6-C****), and the* City of Moorpark General Plan.

An "Updated" Geologic Assessment prepared by AKAI in 2020 includes (1) a review of previous geotechnical/fault reports for the site. (2) review of fault investigation reports performed within nearby properties, (3) review of existing readily available geologic data, (4) development and execution of a laboratory testing program, (4) soil stratigraphic assessment and evaluation of data. The recommendation of the geotechnical feasibility study will be incorporated into the project to the maximum degree feasible and is included as ***Appendix 3.6-A*** *of this environmental impact report (EIR).*

Additional technical information is provided by the Updated Paleontological Records Search and Assessment for the Hitch Ranch Specific Plan City of Moorpark, Ventura County, California, conducted by First Carbon Solutions in March 2020. And included as ***Appendix 3.6-E*** *(FCS 2020).*

3.6.1 EXISTING CONDITIONS

3.6.1.1 Regional Geologic Setting

The site is located within the south-central portion of the Ventura Basin in the western Transverse Ranges geomorphic province. The Ventura Basin is an east-west trending trough that experienced basin inversion (extensional to compressional forces) during late Miocene- to early Pliocene.[1] The change from an extensional to compressional environment is believed to be associated with the development of the "Big Bend" of the San Andreas Fault to the north resulting in north-south crustal shortening of the region.[2]

1 Yeats, R., Huftile, G.J., and Stitt, L., 1994, Late Cenozoic tectonics of the east Ventura Basin, Transverse Ranges, California: AAGP Bulletin, California, v. 78, p. 1040-1074.

2 DeVecchio, D.E., Keller, E.A., Fuchs, M., Owen, L.A., 2012, Late Pleistocene structural evolution of the Camarillo fold belt: Implications for lateral fault growth and seismic hazard in Southern California: Lithosphere, v. 4, no. 2, p. 91-109.

Continued north-south compressional tectonics has produced an intricate system of east-west trending thrust faults, reverse faults, and large-scale folding throughout the basin.

In closer proximity, the site is located on the southern piedmont slopes of the Oak Ridge Mountains. The south margin of the site represents the geomorphic transitions to the valley floor (Little Simi Valley). The Oak Ridge Mountains have been tectonically uplifted in response to folding and reverse slip on the south-dipping Oak Ridge Fault. Across Little Simi Valley to the south, the north-dipping Simi-Santa Rosa fault system resulted in the uplift of the Las Posas Hills. Both faults underlie the Site at depth and result in crustal shortening of the vicinity. Deformation associated with the compression between the Oak Ridge and Simi-Santa Rosa fault systems has resulted in a complex regime of folding and secondary faulting.

The Oak Ridge Mountains and surrounding vicinity are underlain by thousands of feet of sediments that rest unconformably on igneous and metamorphic basement rock. With respect to the near-surface geologic conditions, the southern piedmont slopes of the Oak Ridge Mountains are generally underlain by bedrock assigned to the Pleistocene-age Saugus Formation.[3] Other regional maps have also identified these same deposits as Pleistocene-age older alluvium. The Saugus Formation is terrestrial in origin and is believed to have largely been deposited by the ancestral Santa Clara River. Levi and Yeats[4] utilized magneto-stratigraphy in the nearby Santa Susana Mountains to estimate the lower age of the Saugus at 2.3 million years old (Ma) and the upper age at 400 to 500 thousand years old (Ka). Locally, the discovery of a mammoth during grading for Tract 5054 has provided a biostratigraphic age of 850 Ka to 780 Ka for the upper Saugus Formation in the immediate Site vicinity.[5] The Saugus Formation is generally overlain by late Pleistocene- to Holocene-age alluvial and colluvial deposits within the canyon areas and small tributary drainages. The location of the site and relation to the regional geology is shown the **Regional Geologic Map, Figure 3.6-1**.

3.6.1.2 Geologic Units

Geologic units within the Project site are Quaternary-age older alluvium, recent alluvium, topsoil/colluvium, and artificial fill. Each of the on-site geologic units is described below.

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3 Dibblee, T.W., and Ehrenspeck, H.E., ed., 1992, Geologic map of the Moorpark quadrangle, Ventura County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-40, Scale 1:24,000.

4 Levi, Shaul, and Yeats, Robert S., 1993, Paleomagnetic constraints on the initiation of uplift on the Santa Susana Fault, Western Transverse Ranges, California, copyright 1993 by the American Geophysical Union. https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/93TC00133, accessed June 16, 2021.

5 Wagner, H.M., Lander, B., Roeder, M.A., Prothero, D.R., McDaniel, G.E., Jr., 2007, A new Irvingtonian land mammal assemblage from the Saugus Formation, Moorpark, Ventura County, California: Bulletin of the Southern California Academy of Sciences, v. 10, no. 2, p. 141.

Artificial Fill (Af)

Artificial fill materials were encountered in exploratory excavations and identified during field mapping throughout the site. These fills are generally associated with drainage berms, access roads, and various above- and below-ground modifications that were made to the property in association with the site's previous use. More recent end-dump fills were also locally encountered on the site. The fill materials encountered are generally comprised of locally-derived brown to dark brown and red brown clayey sand and sandy clay. These materials are typically damp to moist, loose to medium dense / soft to stiff, and contain scattered gravels and cobbles. The artificial fill materials encountered in exploratory trench T-4 (AKAI 2019) in a drainage area located in the northeasterly portion of the site also contained abundant construction debris and other assorted trash.

The artificial fills associated with the drainage berms and access roads that extend throughout the site are up to 5 feet thick. Fills encountered within buried drainages identified in the northwesterly portions of the site and locally in a drainage in the northeasterly portion of the site are up to as much as 13 feet thick.

Topsoil

A thin veneer of topsoil is generally present in the upper 3 to 5 feet of the surface. The topsoil is generally formed in-place by weathering of the underlying units and has been substantially disturbed from ploughing. The topsoil is generally comprised of very dark brown to very dark gray clayey sand and sandy clay that is typically damp to moist, loose / soft to medium stiff, and contains scattered gravel and roots. The topsoil was also observed to be moderately porous and have local, poorly-developed blocky ped structures where not completely disturbed.

Colluvium (Qcol)

Colluvium is generally comprised of brown to dark brown and reddish-brown sandy clay, clayey sand and silty sand. The colluvial materials are typically damp to moist, soft to medium stiff / loose to medium dense, moderately porous, and have slightly- to moderately-developed blocky ped structures with clay films and carbonate on ped surfaces. A trace to some gravel is present within colluvium materials. The colluvial deposit measured up to 14 feet in thickness within the center of the drainages.

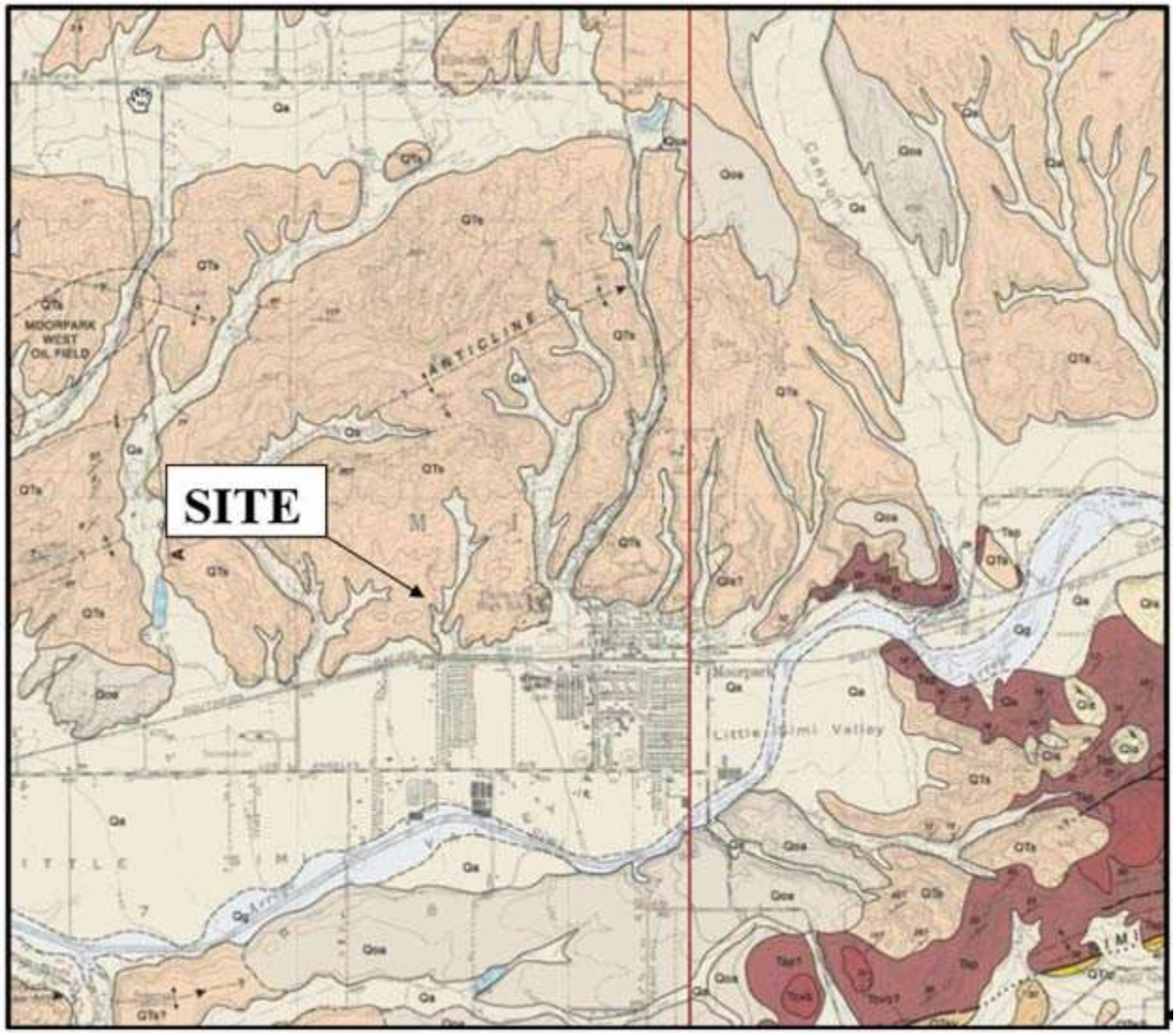


Figure 3.6-1 Regional Geologic Map

From: Dibblee, T.W., and Ehrenspeck, H.E., ed., 1992, Geologic map of the Moorpark quadrangle, Ventura County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-40, scale 1:24,000.

Alluvium (Qal)

Alluvium was encountered within both wide and narrow drainage channels across the site. The alluvium encountered within narrow drainages is generally comprised of light brown to dark brown silty sand, clayey sand, and sand within the upper 15 to 18 feet and light brown to reddish brown silty sand at depth. Alluvial material in narrow drainages is typically medium dense with an occasional layer of loose material at depth and are dry to moist. These materials generally become reddish brown in color at depth, and contain pores throughout the deposit. Alluvium in narrow drainage channels also locally contains increased deposits of sandy material and varying abundance of gravel.

Alluvial material encountered within the wide drainage channels generally consists of silty sand, clayey sand, gravelly sand and sand, with occasional interbeds of sandy clay, clay with sand, and clay. The sandy material is generally of various shades of brown, dry to moist, and loose to dense. The upper portion of the alluvial material is typically darker brown in color, lower in moisture content, and less dense. The fine-grained materials are generally dark brown to brown, moist, and medium stiff to hard. Coarse-grained gravelly material is typically found at the base of the alluvial layer.

Bedrock: Saugus Formation (Qs)

The bedrock materials encountered onsite are assigned to the Saugus Formation. This unit, which was also identified as older alluvium in some of the previous work by Gorian[6] and some geologic maps, generally consists of various shades of brown interbedded sandstone and siltstone with occasional conglomerate beds and lenses. In general, the bedrock materials are dry to moist and moderately hard to locally very hard particularly within the finer-grained well-indurated stratum. The near surface bedrock materials are generally moderately to extremely weathered with scattered krotovinas and roots and no visible structure. Depositional features observed within the Saugus Formation include cross bedding, graded bedding, channel scours and fills, and lateral facies changes typically resulting in interfingered deposits. Soil development features observed within the near surface Saugus Formation include local blocky ped structures, carbonate development, iron and manganese oxide staining, and siliceous cemented horizons. Sub-horizontal, laterally-discontinuous, closely-spaced, clay-rich laminations or lamellae (termed "Bt lams" in this report) were also observed within the sandier units. The Bt lams are easily distinguished from the parent material by their slightly darker and more oxide-stained characteristics.

Note: Information regarding whether the Project site contains radioactive bedrock materials that could be a source of

6 Gorian and Associates, Inc., 1999, Geotechnical Update Report, Specific Plan #1, Hitch Ranch (300 acre parcel), City of Moorpark.

radon gas is contained in ***Section 3.8, Hazards and Hazardous Materials****.*

3.6.1.3 Soil Characteristics

Expansive Soils. Expansive soils are generally composed of clays that swell when wet and shrink when dried. For example, wetting can occur naturally through absorption, rainfall, groundwater intrusion, or irrigation. When structures are located on expansive soils, foundations have the tendency to rise during the wet season, and sink during the dry season. Movements can vary under the structures, which in turn create new stresses on various sections of the foundation. Evidence of the uneven movement is noticeable in warped window frames and doorframes. These variations in ground movement can lead to structural damage. The expansion potential on the Project site ranges from Low to Medium with some soils in the High range.[7]

Collapsible Soils. Soils that are relatively dry and loose can undergo sudden collapse when they become wetted. Such soils tend to consist of sandy soils with minor amounts of fines (silts and clays). The fine soils create a "gluing" between particles of sand that is strong while dry but weak when wet. The specific plan is underlain by natural topsoil, colluvium, and alluvium that typically exhibits characteristics of collapsible soils. Adverse conditions caused by collapsible soils are readily mitigated by recompacting the soils into a dense condition and above optimum moisture content.

3.6.1.4 Slope Stability

In general, landsliding, as well as the lateral force exerted by landslides, can damage or destroy engineered structures. Slope stability is affected by various parameters including the strength of soil and bedrock, groundwater conditions, height of slope, and angle of slope. Calculations are made to consider these factors and determine the factor of safety against failure. The city of Moorpark requires that slopes demonstrate a calculated factor of safety exceeding 1.5 for normal (static) conditions and 1.1 for earthquake (seismic) loading conditions. Where a slope does not exhibit these minimum factors of safety, steps must be taken to enhance the factor of stability. The most common methods involve regrading of the slope to make them flatter, lower, or replaced with stronger materials.

No landslides have been identified within the site on the Landslide Inventory map by the California Division of Mines and Geology or the *Moorpark General Plan* Safety Element. Cut slopes may expose rock that has locally-adverse geologic conditions, expose sandy bedrock materials that are friable and prone to erosion, or create possible nuisance seepage issues. Very limited portions of the specific plan area are located in a State of California Earthquake-Induced Landslide Zone as identified on the California Geological Survey, Earthquake Zones of Required Investigation - Moorpark Quadrangle. Engineering

7 As defined by ASTM D4829, Standard Test Method for Expansion Index of Soils.

analyses to evaluate stability at the site indicate that some slopes have factors of safety less than required by the city of Moorpark. Due to these issues, some slopes will require mitigation for potential instability.

3.6.1.5 Seismic Characteristics

Faulting and Ground Rupture

The earth's crust is divided into various "tectonic" plates that move very slow relative to each other. Southern California lays near the boundary of two tectonic plates called the Pacific plate and North American plate. The North American plate is moving southerly while the Pacific Plate is moving northerly. Faults form in the region between the two tectonic plates as they move past each other. The primary fault in southern California is the San Andreas Fault that extends approximately 750 mile through the state and forms the boundary between the two tectonic plates. Other faults are also present in southern California as part of the overall tectonic system. Faults represent a potential hazard due to the potential for ground rupture that can cause severe damage and destruction to overlying and nearby structures. For this reason, habitable structures cannot be constructed across active faults.

Faults are categorized by the California Division of Mines and Geology (CDMG) as active, potentially active, or inactive. Active faults are those that show evidence of surface displacement during the Holocene epoch, which is within the last 11,000 years. Potentially active faults are those that show evidence of last displacement during the Quaternary epoch, which is within the last 1.6 million years. Faults showing no evidence of displacement within the last 1.6 million years may be considered inactive for most purposes, except for some critical structures.

The specific plan site is located in a seismically active region and is in close proximity to several active and potentially active faults in southern California. Under the Alquist-Priolo Special Studies Zones (APSSZ) Act of 1972, the California State Geologist delineates special study zones along known active and potentially active faults in California. Jurisdictions affected by the zones must regulate development within the zones and ensure that construction does not take place over potential rupture zones. The specific plan site does not lie within an APSSZ. Based on published geologic information and trenching conducted on the specific plan site, no active or potentially active faults are known to exist on or traverse through the site. The closest faults that can contribute intense seismic ground shaking are listed in **Table 3.5-1, Nearby Faults,** and described below. The locations of the nearest faults are depicted in **Figure 3.6-2, Earthquake Fault Zone Maps.**

Table 3.6-1
Nearby Faults

Fault Name	Approximate Distance from Specific Plan Site (miles)	Maximum Moment
Simi–Santa Rosa	2 miles	6.8
Oak Ridge (onshore portion)	5 miles	6.9
Santa Susana	6 miles	6.6
San Cayetano	8 miles	6.8
Northridge (East Oak Ridge)	12 miles	6.9
Holser	12 miles	6.5

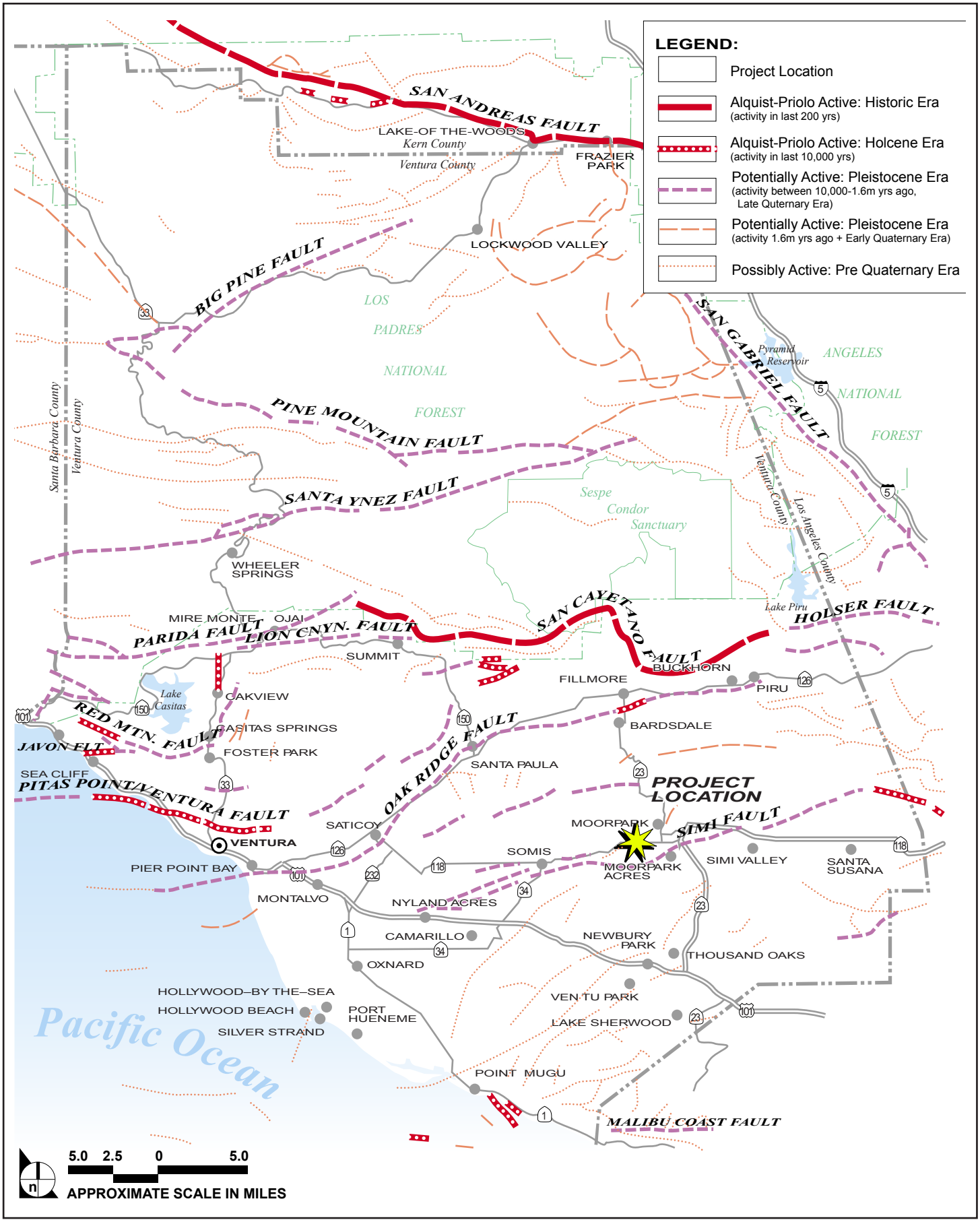
Source: Southern California Probabilistic Seismic Hazard Assessment Maps (PSHA). Available online at: https://www.conservation.ca.gov/cgs/Pages/PSHA/shaking-assessment.aspx, accessed 26 February 2020.

Ground Shaking

As movement of the crustal tectonic plates occurs, slippage along faults results in ground shaking. The energy generated by this slippage moves away from the faults as waves in all directions. The resulting ground shaking is greatest near the faults and dissipates with distance from the fault. Therefore, locations in close proximity to faults are prone to strong ground shaking. The strong ground shaking can cause severe damage or destruction of buildings and other improvements as they are thrown side to side as well as up and down. The specific plan site is located in close proximity to several active faults and as such, could be subjected to strong ground shaking.

Strong ground shaking can also result in secondary impacts such as liquefaction, seismic settlement, landsliding, lateral spreading, ground lurching, seiches, and tsunamis. These secondary impacts can also result in severe damage to urban structures.

Liquefaction. Liquefaction is a process by which soils may liquefy and lose strength during moderate to severe ground shaking. The potential for liquefaction is greatest in areas with loose, granular, low-density soils where the water table is within the upper 50 feet of ground surfaces. Buildings and other structures on the ground surface may tilt and sink, while lightweight objects that are buried may rise to the surface. Slopes and sloping ground underlain liquefiable soils can undergo large lateral movements commonly called lateral spreading. Portions of the site located along the southern boundary were found to be underlain by layers of loose sands within the upper 50 feet and are below groundwater. Engineering analyses have confirmed these layers are prone to liquefication during a strong ground shaking event.



SOURCE: California Department of Conservation, Division of Mines and Geology, Publications and Information, 1999.

FIGURE **3.6-2**

Regional Faults

IMPACT SCIENCES

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Seismic Settlement. Soils that undergo liquefaction will tend to seek a denser condition which causes the overlying ground to settle. The ground surface is estimated to undergo subsidence on the order of a few inches. However, no residential structures are planned to be supported by these materials.

Seismic Landsliding. Earthquakes cause large horizontal forces and slopes subjected to these forces can become unstable and fail, particularly if they are high and/or steep. Engineering analyses have identified that a limited number of natural slopes along the southern boundary of the specific plan and therefore will require mitigation.

Lateral Spreading. While soils are liquefied, they can lose significant strength and make the ground prone to sliding or "lateral spreading." The presence of liquefiable soils may cause instability of slopes located along the southern boundary of the specific plan and therefore mitigation will be required.

Seiches. Seiches are the displacement of water within an enclosed body of water such as a lake caused by earthquakes. Strong ground motions from an earthquake cause the water to slosh back and forth onto land. No sizable enclosed body of water is within the site or its vicinity. As result, the potential for hazards associated with seiches is non-existent.

Tsunamis. A tsunami is a sea wave generated by large-scale displacements of the ocean floor that causes sudden surge of water on to the land. Tsunamis are most commonly caused by movement along faults and underwater landslides activated by earthquakes. The portion of the site to be developed is elevated approximately 500 feet above mean sea level and is located a substantial distance from a significant body of water. As such, the potential for hazards related to tsunami is considered very low.

3.6.1.6 Groundwater

The project area is located over the Las Posas Basin (LPB), an east-west-trending structural depression containing water-bearing sediments of Pliocene to Recent Aged. The basin is believed to be divided into separate basins (North and South) by the Moorpark Anticline, a large east-west-trending structure located north of Los Angeles Avenue. The specific plan site overlies the North LPB and is not located within a groundwater recharge area. The main source of recharge of the North LPB within the Moorpark area is through the Fox Canyon and Grimes Canyon aquifer system which outcrops north of Moorpark in the Grimes Canyon and South Mountain areas. These aquifers are considered confined and protected from surface infiltration over much of the LPB by a clay cap, except in the vicinity of the previously mentioned Grimes Canyon and South Mountain areas.[8] The Hitch Ranch site is located in the area consisting of significant amounts of clays and silts that cap the aquifer. Currently, rainfall that falls on the specific plan

8 Metropolitan Water District of Southern California, *Draft Groundwater Assessment Study Report*. March 2007.

site is either taken up by vegetation, evaporates, or moves through the soil in a downslope direction towards the Arroyo Simi. Some of this flow may percolate down to the groundwater on route to the Arroyo Simi and once in the channel may percolate through the streambed into the water table. As the Arroyo Simi continues downstream, it supplies water to the North Las Posas groundwater basin.[9,10]

Groundwater wells located and excavated on the Project site have measured the depth to groundwater at about 98 to 600 feet below ground surface (bgs). Nonetheless, perched (trapped) groundwater was observed at depths ranging from 15 to 46 feet bgs from 1999 to 2019 (AKAI 2019). The water encountered at depths of 15 feet is considered perched in lenticular-shaped semipermeable soil zones surrounded by less-permeable soils. Based on well logs it appears that useable groundwater is several hundred feet deep. The perched groundwater was only observed in the southern portion of the site (AKAI 2019).

3.6.1.7 Paleontological Resources

Geology and Paleontology

An earlier paleontological assessment was done for this project (SWCA 2006). Pursuant to comments and direction received from the City of Moorpark, it was determined that an updated paleontological records search for the project area would be required to bring the report's findings up to date, particularly in light of significant discoveries made in the area that were not available to the study's authors at the time of writing. Chief among them are two particularly important discoveries (the Moorpark Highlands Project and the "Moorpark Mammoth" site) that were recovered from the Saugus Formation in 2005 and have added significant information to the age and nature of Saugus Formation deposits in the area of the Proposed Project. The information in the following section is based on the **Updated Paleontological Records Search and Assessment for the Hitch Ranch Specific Plan City of Moorpark, Ventura County, California**, conducted by First Carbon Solutions in March 2020. And included as **Appendix 3.6-E** (FCS 2020).

Previous geologic mapping of the project area indicates the site is underlain by Pleistocene-age Saugus Formation[11] although some publications identify this same deposit as Late Quaternary Older Alluvium. However, it should be noted that geotechnical studies conducted at the Project site report the composition

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9 Calleguas Municipal Water District, *Final Program EIR for the Las Posas Basin Aquifer Storage and Recovery Project*, April 1995.

10 California Department of Water Resources (DWR), California's Groundwater Bulletin 118- Las Posas Valley Groundwater Basin. January 2015.

11 Dibblee, T.W., and Ehrenspeck, H.E., ed., 1992, Geologic map of the Moorpark quadrangle, Ventura County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-40, Scale 1:24,000.

of the surficial sediments as Saugus Formation as well as Holocene (Recent) alluvium, colluvium, and artificial fill. Grading of the site is expected to disturb Saugus Formation deposits.

Saugus Formation. The definition of the Saugus Formation has been revised since the original report (SWCA 2006). It is now defined as being a non-marine formation. Marine strata formerly assigned to the Saugus Formation are now assigned to the Pico Formation. The Sunshine Ranch and Camarillo members of the Saugus Formation have been formally adopted. Some strata producing marine organisms and formerly assigned to the Saugus Formation are now assigned to the Pico Formation. However, in the Moorpark area, the Saugus Formation is mapped as undifferentiated as to member.

The Saugus Formation is the oldest formation within the project area. The Saugus Formation is mapped in the hills of the project area. It occurs beneath older alluvium in the western portion of the Proposed Project. It is described as moderately-sorted commonly cross-bedded and channeled; interbedded with moderate-brown to reddish-brown poorly sorted sandy mudstone and local claystone seams in the type area and other portions of the eastern Ventura basin, reflecting overbank deposits and paleosols; fluvial near the basin axis, transitioning to alluvial fan environment near the basin margins; interfingers with shallow marine sands to the west. Mammalian fossils collected from the upper member of this formation belong to the Irvingtonian North American Land Mammal Age. A combination of faunistic and geomagnetic evidence indicates an age range of 850,000 to 780,000 years for the part of the Saugus Formation that produced those fossils.

Late Quaternary Older Alluvium. Geologic mapping of the project area indicates that Late Quaternary older alluvial deposits are exposed in the valleys of the Hitch Ranch project area. Other workers designate the rock units exposed in the hills of Hitch Ranch as Late Quaternary (Pleistocene) Older Alluvium. The Older Alluvium at Hitch Ranch is composed of up to 36 feet of interbedded, lenticular yellowish-brown sand, light yellowish-brown silt, and yellowish-brown clay that often contain clasts from the underlying Modelo Formation. Current data indicates that the Older Alluvium in the Moorpark area is Middle Pleistocene (400,000 to 280,000 years old).

Recent Alluvium, Colluvium, and Artificial Fill. Previous geotechnical studies (AKAI 2019) for the Hitch Ranch Specific Plan project indicate that some of the surficial sediments overlying the Saugus Formation in the project area are Holocene (Recent) alluvial stream deposits, colluvium, and artificial fill. Holocene deposits are too young to contain fossils and are thus classified as low-sensitivity sediments. The uppermost younger alluvial deposits are determined to have a low paleontological sensitivity rating; however, according to Society of Vertebrate Paleontology (SVP) guidelines, geologic units greater than 5,000 years old may contain fossilized material. Therefore, the paleontological sensitivity of the young alluvial sediments mapped within the Project site increases with age (i.e., depth). Artificial fill obviously

has low potential for paleontological resources. Even if fossils were found in artificial fill, the original locality of the fossils would be unknown.

Museum Records Search. The updated paleontological records search showed no localities within the boundaries of the Proposed Project. The list of fossils and localities that the Natural History Museum of Los Angeles County (LACM) reported this year in the vicinity of the Proposed Project does not differ from the list provided in the 2006 SWCA report. There is one recorded fossil from older Quaternary alluvium. It is that of a horse. That locality is southwest of the Proposed Project. The other is of a mastodon (family *Mammutidae*), from the Saugus Formation, locality LACM (CIT) 585. That locality is somewhat farther to the southwest. Personnel involved in the recovery and reporting of the Meridian Hills Project reported that a collection of Saugus fossils from that project were curated at the Santa Barbara Museum of Natural History. The Curator of Geology at that institution made available a spreadsheet of the Meridian Hills Project fossils curated there. The Meridian Hills Project is a very short distance from the Proposed Project. Overall, the museum reported 16 horse fossils, six mammoth fossils-including two species, two llama fossils, five specimens belonging to camel family, one rabbit, an unspecified number of rodent teeth belonging to six general and one extinct species, and one specimen of an unspecified proboscidean. The museum also reported it has no other collections from the Saugus Formation or from Moorpark.

Literature Review. At the time of the original report (SWCA 2006), the Saugus Formation had not produced a significant amount of vertebrate fossils in the Simi Valley. However, since the publication of the original report, a considerable number of fossils have been collected from the Saugus Formation in Moorpark. A development known as the Meridian Hills Project produced vertebrate fossils, and that project lies a few yards northeast of the Proposed Project. The Meridian Hills Project produced a 70 percent complete skeleton of the southern mammoth (*Mammuthus meridionalis*), elements of the Columbian mammoth (*Mammuthus columbi*), the western horse (possibly Equus occidentalis), the large-headed llama (*Hemiauchenia macrocephala*), as well as smaller vertebrates. The smaller organism include a probable cottontail rabbit (possibly Sylvilagus), a species of the pocket gopher (*Thomomys*), a species of the pocket mouse (*Perognathus*), a species of the kangaroo rat (Dipodomys), a species of the harvest mouse (*Reithrodontomys*), a species of the wood rat (Neotoma), and Mead's pine mouse (*Pitymys meadensis*). The demonstration that these two species of *Mammuthus* overlapped in this time interval is important. The collection of organisms from this project was designated the Meridian Hills local fauna (Wagner et al., 2007). Those authors demonstrated that the known ranges of the southern mammoth and Mead's pine mouse plus the magnetostratigraphic data from the site narrowed the age range of this deposit to 850,000 to 780,000 years. The collection was accessioned by the Santa Barbara Museum of Natural History.

Another development known as Moorpark Highlands Project produced vertebrate fossils, and it lies farther to the northeast, across Walnut Canyon Road. The final report for the paleontological resource monitoring

and mitigation effort by the Chambers Group was authored by Hugh Wagner (Chambers 2007). Mr. Wagner reported that a collection of mollusk fossils was obtained from the Pico Formation, and several vertebrate fossils, including a partial skeleton of a mastodon (Mammut sp.,) from the Saugus Formation. Fossils of horse were also recovered. The report states that, "The specimens have since been cleaned, sorted, and analyzed and were recently curated into the collections of the Museum of Natural History, Los Angeles, California." An accession form from the LACM was included as Attachment F. However, the form is undated, has no accession number, and is not signed by any staff member of the museum. Through a personal communication, Dr. Samuel McLeod of the LACM assured that no vertebrate fossils from that project were ever accessioned or curated by the LACM. Furthermore, personal communication with Jonathan Hoffman stated that no such collection had been curated at the Santa Barbara Museum of Natural History.

***Results and Analysis*. Table 3.6-2, Paleontological Sensitivities of Geologic Units within the Hitch Ranch Project Area**, summarizes the paleontological sensitivity ratings of the geologic units underlying the Hitch Ranch Specific Plan project area.

Table 3.6-2
Paleontological Sensitivities of Geologic Units within the Hitch Ranch Project Area

Geologic Formation	Age	Fossils	Paleontological Sensitivity
Alluvium, Colluvium, and Fill	Holocene	None	Low to High
Older Alluvium	Pleistocene-Holocene	Terrestrial Vertebrates	High
Saugus Formation	Plio-Pleistocene	Terrestrial Vertebrates	Very High

Source: First Carbon Solutions, March 2020

The search of the LACM collections records indicated that at least one nearby locality produced vertebrate fossils in the older alluvium, and many localities in the older alluvium in Southern California. Older alluvium is almost always rated at least at a high level of paleontological sensitivity. When the first paleontological assessment was written, the LACM collections records showed a single Simi Valley locality that had produced a vertebrate fossil. That statistic has not changed, but multiple subsequent projects near the Proposed Project have produced significant vertebrate fossil collections. The Saugus Formation in Moorpark must therefore be rated as having a very high level of paleontological sensitivity.

3.6.2 REGULATORY FRAMEWORK

3.6.2.1 International

Uniform Building Code (UBC)

The UBC is published by the International Conference of Building Officials and forms the basis for California's Building Code, as well as approximately 50 percent of the state building codes in the United States. It has been adopted by the California Legislature to address the specific building conditions and structural requirements for California, and provide guidance on foundation design and structural engineering for different soil types. The UBC defines and ranks the regions of the United States according to their seismic hazard potential. There are four types of regions defined by Seismic Zones 1 through 4, with Zone 1 having the least seismic potential and Zone 4 having the highest.

3.6.2.2 Federal

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) established the National Earthquake Hazards Reduction Program which is coordinated through the Federal Emergency Management Agency (FEMA), the U.S. Geological Survey (USGS), the National Science Foundation, and the National Institute of Standards and Technology. The purpose of the Program is to establish measures for earthquake hazards reduction and promote the adoption of earthquake hazards reduction measures by federal, state, and local governments; national standards and model code organizations; architects and engineers; building owners; and others with a role in planning and constructing buildings, structures, and lifelines through (1) grants, contracts, cooperative agreements, and technical assistance; (2) development of standards, guidelines, and voluntary consensus codes for earthquake hazards reduction for buildings, structures, and lifelines; and (3) development and maintenance of a repository of information, including technical data, on seismic risk and hazards reduction. The Program is intended to improve the understanding of earthquakes and their effects on communities, buildings, structures, and lifelines through interdisciplinary research that involves engineering, natural sciences, and social, economic, and decisions sciences.

Disaster Mitigation Act (2000)

The federal Disaster Mitigation Act (DMA; Public Law 106-390) provides the legal basis for FEMA mitigation planning requirements for state, local, and Indian Tribal governments as a condition of mitigation grant assistance. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions and replacing them with a new

set of requirements that emphasize the need for state, local, and Indian Tribal entities to closely coordinate mitigation planning and implementation efforts. The requirement for a state mitigation plan is continued as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans. DMA 2000 also established a new requirement for local mitigation plans and authorized up to 7 percent of Hazard Mitigation Grand Program funds available to a state for development of state, local, and Indian Tribal mitigation plans.

Clean Water Act

The Federal Water Pollution Control Act of 1972, often referred to as the Clean Water Act, empowers the US Environmental Protection Agency (US EPA) with regulation of wastewater and stormwater discharges into surface waters by using National Pollutant Discharge Elimination System (NPDES) permits and pretreatment standards. At the state level, these permits are issued by the Regional Water Quality Control Boards, but the US EPA may retain jurisdiction at its discretion. The Clean Water Act's primary application for geology and soils is with respect to the control of soil erosion during construction.

U.S. Geological Survey Landslide Hazard Program

The USGS Landslide Hazard Program provides information on landslide hazards including information on current landslides, landslide reporting, real time monitoring of landslide areas, mapping of landslides through the National Landslide Hazards Map, local landslide information, landslide education, and research.

3.6.2.3 State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (California Public Resources Code Section 25523(a); 20 CCR 1752(b) and (c); 1972 [amended 1994]) was passed in 1972 to regulate development on or near active fault traces to reduce the hazards associated with surface faulting. The Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. Within Alquist-Priolo Earthquake Fault Zones, site-specific geologic investigations must be performed prior to permitting, and must demonstrate that a proposed building will not be constructed across active faults. If an active fault is found, any structures for human occupancy must be set back from the fault, generally 25 to 50 feet.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act addresses seismically induced hazards, including liquefaction and landsliding (slope instability). Seismic hazard zones showing areas where there is potential for ground shaking, liquefaction, landsliding, and other types of ground failure have been developed by the state to better regulate development in hazard-prone areas. For sites located within a seismic hazard zone, geotechnical investigations must be conducted to assess if a hazard exists, and the investigations must provide options for mitigation if any hazards are identified. Geotechnical investigations within seismic hazard zones should be conducted following guidelines specified by CGS Special Publication 117, "Guidelines for Evaluating and Mitigating Seismic Hazards." The California Public Resources Code Chapter 7.8, 1990 Seismic Hazards Mapping Act, allows the lead agency to withhold permits until geologic investigations are conducted and mitigation measures are incorporated into plans.

California Building Standards Code

The State of California's minimum standards for structural design and construction are given in the California Building Standards Code (CBSC) (CCR Title 24). The CBSC is based on the federal Uniform Building Code (International Code Council 1997), which is used widely throughout United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for California conditions with numerous, more detailed or more stringent regulations. The CBSC provides standards for various aspects of construction, including but not limited to: excavation, grading, and earthwork construction; fills and embankments; expansive soils, foundation investigations, and liquefaction potential; and soil strength loss.

Southern California Catastrophic Earthquake Preparedness Plan

The Southern California Catastrophic Earthquake Preparedness Plan, based on the California Geological Survey and USGS's ShakeOut Scenario of 2008, was released in 2010 and examines the initial impacts, inventories resources, cares for those wounded and homeless, and develops a long-term recovery process. The process of Long-Term Regional Recovery (LTRR) provides a mechanism for coordinating federal support to state, tribal, regional, and local governments, nongovernmental organizations (NGOs), and the private sector to enable recovery from long-term consequences of extraordinary disasters. The LTRR process accomplishes this by identifying and facilitating the availability and use of recovery funding sources and providing technical assistance (such as impact analysis) for recovery and recovery planning support. "Long term" refers to the need to reestablish a healthy, functioning region that would sustain itself over time. Long-term recovery is not debris removal and restoration of utilities, which are considered

immediate or short-term recovery actions. The LTRR's three main focus areas are housing, infrastructure (including transportation), and economic development.

3.6.2.4 Local

City of Moorpark General Plan Safety Element

The *City of Moorpark General Plan* Safety Element was adopted in 2001.

Goal 1: Minimize the potential damage to structures and loss of life that could result from earthquakes.

Policy 1.1: Continue to implement Uniform Building Code seismic safety standards for construction of new buildings, and update the City's codes as needed in response to new information and standards developed at the State level.

Policy 1.2: Require the preparation of detailed geologic studies for any development proposal within seismic hazard zones and liquefaction hazard zones.

(Goal 2 is not applicable to the project)

Goal 3: Protect public and private properties from geologic hazards associated with steep slopes, unstable hillsides, and subsidence.

Policy 3.1: Reduce the risk of impacts from geologic hazards by applying proper engineering, building construction, and retrofitting requirements to the development process.

Policy 3.2: Require that slope stability analyses be conducted for new development in hillside areas.

Policy 3.3: Require that hillside developments incorporate measures that mitigate slope failure potential and provide for long-term slope maintenance.

Moorpark Municipal Code Title 15

Title 15 details Building Code for the City of Moorpark, which includes the California Building Code, 2016 Edition, as adopted and amended by the Moorpark Municipal Code.

3.6.3 THRESHOLDS OF SIGNIFICANCE

The following standards of significance are based on Appendix G of the *2019 California Environmental Quality Act (CEQA) Statutes and Guidelines*. For the purposes of this revised draft program EIR, impacts would be significant if the project would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault;
  - Strong seismic ground shaking;
  - Seismic-related ground failure, including liquefaction; or
  - Landslides.
- Result in substantial erosion or the loss of topsoil.
- Be located on a geologic unit or soil type that is unstable, or that could become unstable as a result of the project, and potentially result in on-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse.
- Be located on expansive soil, creating substantial risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

3.6.4 METHODOLOGY

This section evaluates hazards to people or property from geology and soils, identifies mitigation measures for the impacts, and evaluates the residual impacts. The potential for hazards to people and property from geology and soils was evaluated in accordance with Appendix G of the 2019 State California Environmental Quality Act (CEQA) Guidelines. The methodology for determining the significance of potential risk to people and property in relation hazards posed by geology and soils compares the existing conditions to the future conditions upon project completion, as required by *CEQA Guidelines* Section 15126.2(a).

3.6.5 PROJECT IMPACTS

Impact GEO-1a **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.**

Less than Significant

The Hitch Ranch Project proposes to construct 755 residential units, including single-family and multi-family homes, retention basins, and supporting roadways, all of which are subject to seismic events (see **Table 3.6-1**). Seismic events can damage transportation infrastructure and urban development through surface rupture, ground shaking, liquefaction, and landslides.

The 2020 AKAI *"Updated" Geologic Assessment of Surface Fault Rupture Potential* evaluated the northerly portion of the site and identified two fault zones which were determined through soil-stratigraphic assessment to be pre-Holocene-age faults, as defined by the California Geological Survey. Therefore, they are not considered active fault lines. In addition, previous studies by GIA for the site did not find any evidence of faulting or any other forms of deformation of the deposits encountered within their trenches in the central and southerly portions of the Site. AKAI also found that there is no evidence of Holocene-age faulting during investigations of neighboring projects. AKAI concludes that the potential for future ground rupture within the Site associated with "active" faulting is considered very low and no mitigation measures are required.

Based on the Division of Mines and Geology Special Publication 42 (SP-42), fault-related (tectonic) ground deformation is defined as "Surface and near-surface deformation caused by fault rupture at depth or at some horizontal distance away from the fault that is not expressed as discrete surface fault, including both brittle (fissures and tension cracks) and non-brittle (folding, warping, or tilting) deformation". The Alquist-Priolo Act does not specifically address fault-related ground deformation. However, in accordance with the guidelines in SP-42, fault-related ground deformation should also be assessed with respect to its impact on the ability of a structure for human occupancy to provide for life-safety and serviceability.

Based on AKAI's assessment, the anticlinal fold encountered in trench FT-1 evaluated in the northern portion of the Site is interpreted to be a fault-related structure associated with the Southern Area thrust fault. In addition, results of AKAI's soil-stratigraphic assessment indicates the folding occurring more than 58,000 years ago and probably much later. Considering the folding encountered during AKAI's

investigation is pre-Holocene in age and that previous studies by GIA for the site did not find any evidence of faulting or any other forms of deformation within GIA's trenches in the central and southerly portions of the site, the probability of fault-related ground deformation during the life of the proposed structures within the Site is considered very low. No mitigation measures are required.

Furthermore, AKAI goes onto to find that their estimates of uplift of the anticlinal fold indicate that if a large earthquake on either the Oak Ridge fault or the Simi-Santa Rosa happens to occur near the Site causing movement of the Southern Area thrust fault beneath the site, the vertical uplift of the anticlinal structure within the site would be relatively small. AKAI has estimated the resulting vertical uplift would be about 1.3 inches or less. Due to the recurrence frequency of such events, only one event is likely to occur during the design life of the project (50 to 100 years). This uplift would also likely be very gently distributed at the ground surface over the broad area of the anticlinal structure such that differential tilting would be negligible. Therefore, construction and operation of the Proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture or ground deformation. Therefore, impacts related to surface rupture from a known earthquake fault would be less than significant.

Impact GEO-1b **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.**

Less than Significant

As with all properties in the seismically active Southern California region, the primary seismic hazard for the Project Site is the potential for strong ground shaking. The Project Site is susceptible to ground shaking as a result of potential movement along faults in the region.

According to the AKAI's "Updated" Geotechnical Feasibility Investigation, during the life of the proposed development, the Site could experience very high levels of ground shaking associated with the nearby Oak Ridge fault, the Simi-Santa Rosa fault, and other nearby faults (see **Table 3.6-1**). AKAI recommends that future structures be designed, as a minimum, in conformance with Chapter 16 of the latest California Building Code (CBC) to mitigate this potential hazard. All projects are required to adhere to the latest CBC and as a result, development of the proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure or liquefaction. Therefore, impacts related to ground failure would be less than significant.

Impact GEO-1c **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure and liquefaction.**

Less than Significant with Mitigation

Most of the site is underlain by conditions that are not considered to be susceptible to liquefaction. However, a limited portion of the site along the southern margin is underlain by liquefiable soils that could undergo ground failure. Depending on the estimated severity of liquefaction, which would be determined by conducting a design-level geotechnical investigation, mitigation is anticipated to consist of providing sufficient setbacks from such areas to avoid adverse effects of these conditions. Where setbacks are not feasible, various alternative methods could be implied such as (1) in-situ densification by means of deep dynamic compaction (DDC) and associated subsurface drains; (2) vibro-replacement (stone columns) and vibroflotation; (3) compaction grouting or chemical stabilization employing pressure techniques; and (4) special structural design consisting of deep foundations and self-supporting structural floor slabs to transfer loads below zone(s) of concern, or a thick mat foundation. Therefore, the impact related to liquefaction may be significant. The project will implement **Mitigation Measure GS-1** which will require the applicant to implement one of the available mitigation alternatives listed above. The potential of damage and injury to persons occupying the project would be reduced to less than significant with the implementation of mitigation.

Impact GEO-1d **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.**

Less than Significant with Mitigation

Steep natural slopes are located within the southwestern area of the specific plan site. The slopes are about 70 to 80 feet in height. The slopes have gradients of 1-1/2 (horizontal [h]) to 1 (vertical [v]), and 2(h) to 1(v) or shallower. Engineering analyses have identified these slopes have factors of safety for stability that are less than required by governing construction codes. Habitable structures are proposed to be setback from these slopes to where the factors of safety for stability meet or exceed governing construction codes, and impacts would be less than significant.

Manufactured slopes within the development area are proposed to be constructed at a gradient of 2(h) to 1(v) or less. The highest or maximum cut slope in the development area would be about 75 feet in height and would be situated just north of Poindexter Avenue. The highest or maximum fill slope in the development area would be about 61 feet in height and occur along a south-facing slope near the south-central portion of the specific plan site. Lastly, a fill over cut slope of about 89 feet in height is

proposed in the southeastern portion of the specific plan site. Proposed manufactured slopes on the specific plan site would result in a static safety factor of greater than 1.5, thus resulting in less than significant impacts.

Cut slopes could exposed localized conditions of locally-adverse geologic structure, expose sandy bedrock materials that are friable and prone to erosion, or possible nuisance seepage issues. However, implementation of **Mitigation Measure GS-1** through **GS-3**, would reduce potential impacts related to this issue to less than significant with mitigation.

Impact GEO-2 Would the Project result in substantial soil erosion or the loss of topsoil?

Less than Significant

Demolition, site grading, and construction phases of the Proposed Project would involve earth movement, use of heavy machinery, and use of potentially contaminating substances such as petroleum products, paints, and building materials. Grading of the Project site would involve the cut and fill approximately 2.5 million cubic yards of earth, which would be balanced on site. Maximum cut slopes would be approximately 75 feet high, and maximum fill areas would be approximately 61 feet high.

Approximately 198.7 acres (78 percent) of the Project site would be graded under the proposed specific plan. Approximately 55.2 acres (22 percent) of the Project site would remain undisturbed. Unless preventative control measures are implemented, short-term wind and water driven erosion of soils from the Project site and leaching of substances into underlying groundwater could occur during grading and construction, which would result in surface and groundwater contamination. However, under the requirements of the Clean Water Act (CWA) amendments of 1972, the project construction contractor will be required to file a notice of intent under the State's National Pollutant Discharge Elimination System (NPDES) General Construction Permit (CAS00002). The project applicant would be required to adhere to conditions under the NPDES permit set forth by Los Angeles Regional Water Quality Control Board (LARWQCB), and prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to be administered throughout all phases of grading and project construction. The SWPPP will incorporate Best Management Practices (BMPs) to ensure that potential water quality impacts during construction phases are minimized, see **Section 3.10 Hydrology**. In addition, the SWPPP will require that if any spill of materials known to be water pollutants or hazardous materials does occur, the LARWQCB and Ventura County Environmental Health Division (VCEHD) will be contacted immediately (if necessary) and appropriate cleanup of the spill will take place as soon as possible. The NPDES permit application approval conditions set forth by LARWQCB will dictate the actual measures and requirements of the project SWPPP and any other provisions deemed necessary by LARWQCB. The requirements set forth by the LARWQCB will serve

to reduce potential impacts to water resources that could result during grading and construction phases to a less than significant level.

Impact GEO-3 **Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

Less than Significant with Mitigation

Liquefaction. Hillside areas on the specific plan site that are underlain by older alluvium are not considered to be susceptible to liquefaction. The scattered layers of recent alluvium in the lower-lying areas, however, do have the potential for liquefaction if saturated. The potential for structural damage and risk to persons does exist without the incorporation of ground improvements/techniques to reduce movement of the structure. Depending on the estimated severity of liquefaction, which would be determined by conducting a design-level geotechnical investigation, deep ground improvement techniques may include the following alternatives: (1) in-situ densification by means of deep dynamic compaction (DDC) and associated subsurface drains; (2) vibro replacement (stone columns) and vibroflotation; (3) compaction grouting or chemical stabilization employing pressure techniques; and (4) special structural design consisting of deep foundations and self-supporting structural floor slabs to transfer loads below zone(s) of concern, or a thick mat foundation. **Mitigation Measure GS-1** would require the implementation of one of the available structural design alternatives, Therefore the potential impacts would be reduced to less than significant levels.

Seismic Settlement. Recent alluvium soils on the Project site may be subject to seismically induced settlement. These soils would provide problems in the event of an earthquake when located within the influence of structures, potentially causing risk to persons occupying the on-site structures. Furthermore, these soils are not suitable for direct support of footings, pavement, concrete slabs, or for use as structural fill. Measures contained in AKAI's geotechnical feasibility report indicate that soils will either require densification or over-excavation in areas below the structures and pavement, and that these materials must be replaced with a properly compacted fill. **Mitigation Measure GS-3** would require the implementation of the recommended measures to provide uniform and competent-bearing mat and reduce the potential for settlement and differential movement. Therefore, the potential settlement impacts would be reduced to less than significant levels.

Collapsible Soils. The site is underlain by topsoil, colluvium, and alluvium that may be prone to collapse upon wetting. Soil collapse could lead to excessive settlement of overlying structures and improvements.

However, with implementation of **Mitigation Measure GS-1**, the impact will be reduced to less than significant levels.

Landslides. As indicated in **Impact GEO-1d**, natural slopes along the southern margin of the Project site could result in a potentially significant impact in regard to landslides. However, with implementation of **Mitigation Measure GS-1** through **GS-3**, the impact will be reduced to less than significant levels.

Lateral Spread. Lateral spread refers to landslides that commonly form on gentle slopes or behind slope faces and that have rapid fluid-like movement. As indicated in **Impact GEO-1c**, limited portions along the southern margin of the site could undergo lateral spreading. However, with implementation of **Mitigation Measure GS-1** through **GS-3** the impact will be reduced to less than significant levels.

Impact GEO-4 **Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?**

Less than Significant with Mitigation

The site is located in an area that has a very low to high shrink-swell potential. When structures are located on expansive soils, foundations have the tendency to rise during the wet season and sink during the dry season. Movements can vary under the structures, which in turn create new stresses on various sections of the foundation. These variations in ground settlement can lead to structural damage or failure. However, the project will implement **Mitigation Measure GS-1** which will require the applicant to define the severity of liquefaction, settlement, and expansiveness conditions, and implement one of the available structural design alternatives listed; with the implementation of **Mitigation Measure GS-1**, the impacts would be less than significant.

Impact GEO-5 **Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

No impact

The Project site is located in an urban area served by a wastewater collection, conveyance, and treatment system operated by the Moorpark Wastewater Treatment Facility. No septic tanks or alternative disposal systems currently exist on the site or proposed by the project. Thus, there would be no impact. Refer to **Section 3.17, Wastewater** for an analysis of the sewer system for the Proposed Project.

Impact GEO-6 **Would the project directly or indirectly destroy a paleontological resource or site or unique geologic feature?**

Less than Significant with Mitigation

Development of the project would disturb approximately 198.7 acres on the site from construction related construction activities. In addition to grading, construction activities that would disturb the subsurface would include construction of residential units and access roads. A separate assessment of paleontological resources was conducted by First Carbon solutions in February 2020 and included a comprehensive literature review, museum records search, and a field survey.

Previous geologic mapping of the project area indicates the presence of Late Quaternary Older Alluvium and the underlying Plio-Pleistocene Saugus Formation within the project area. However, it should be noted that the GIA geotechnical studies conducted at the Project site instead report the composition of the surficial sediments as Late Quaternary Older Alluvium and Holocene (Recent) alluvium, colluvium, and artificial fill. Core samples taken from Hitch Ranch indicate that the Plio-Pleistocene Saugus Formation is present beneath the Older Alluvium. Furthermore, the AKAI study found that the two faults identified in the northern portions of the site are in the bedding of the Saugus Formation. Thus, the Saugus Formation may be impacted during grading of the Proposed Project area.

On March 29, 2005, an earthmover uncovered the bones of a Southern mammoth, (*Archidiscodon meridionalis*) estimated to be 1 million years old in the Meridian Hills development, an approximately 325-acre project of William Lyons Homes located north of downtown Moorpark and just west of Walnut Canyon Road, and approximately 0.5 mile north of the Project site.[12] This find was discovered in the Saugus Formation and approximately 70 percent of the bones were recovered and assembled. The mammoth was donated to the Santa Barbara County Natural History Museum. Mastodon bones have also been discovered on the Moorpark Highlands Project site approximately 1.5 miles northeast of the Project site.

Due to the high paleontological sensitivity of the Plio-Pleistocene Saugus Formation and the older Quaternary alluvium, excavations in these units within the Hitch Ranch project area are likely to have a negative impact on nonrenewable paleontological resources unless proper mitigation measures are implemented. Impacts are therefore potentially significant. **Mitigation measures GS-4** through **GS-8** will be implemented in order to reduce the impact posed to the highly paleontological areas of the Project site to less than significant levels.

12 City of Moorpark, *Moorpark is Mammoth Country*, 2005.

3.6.6 CUMULATIVE IMPACTS

Unless otherwise noted, the cumulative impacts analysis for the specific plan project considers the buildout of land within the project study area, which is inclusive of the City of Moorpark, based on current land use designations set forth in the City's general plan, as well as all known general plan amendment requests for additional development in the study area. A cumulative impact is an impact that is created as a result of the combination of the Proposed Project together with other past, present, and probable future projects causing related impacts. Cumulative geology and soils impacts can occur where there would be an ongoing alteration to the natural topography; past, present, and foreseeable future development would occur in seismically active areas; grading activities would affect the stability of past, present, and foreseeable future development; and/or erosion would cumulatively affect water quality.

Generally, impacts related to geotechnical conditions are site-specific and, in this case, would be limited to areas within the development boundaries of the specific plan site. Soil stability and erosive conditions for development sites in the immediate vicinity of the specific plan site are expected to be similar to those found on the specific plan site. Buildings and facilities on and off the site are required to be sited, designed, and constructed in accordance with geotechnical and seismic building codes. Future off-site projects would also be expected to mitigate their respective impacts to a less than significant level with the implementation of site-specific/project-specific mitigation set forth in their respective soils and geotechnical reports. Additionally, any potential incremental contribution of the Hitch Ranch Specific Plan project to off-site soils and geological impacts is not cumulatively significant because the Proposed Project will comply with the applicable requirements of the *California Building Code*, and the mitigation program requirements will be implemented during project construction. For these reasons, the project's contribution to cumulative geotechnical and soils impacts is less than significant.

3.6.7 MITIGATION PROGRAM

3.6.7.1 Standard Conditions and Requirements

- Grading, drainage, and improvement plans and supporting reports and calculations must be prepared in accordance with the latest California Building Code as adopted by the City of Moorpark and in conformance with the latest "Land Development Manual" and "Road Standards" as promulgated by Ventura County; "Hydrology Manual" and "Design Manual" as promulgated by Ventura County Watershed Protection District; "Standard Specifications for Public Works Construction" as published by BNI (Except for signs, traffic signals, and appurtenances thereto which must conform to the provisions of Chapter 56 for signs and Chapter 86 for traffic signals, and appurtenances thereto, of the

"Standard Specifications," most recent edition, including revisions and errata thereto, as published by the State of California Department of Transportation).

- Grading, drainage, and improvement plans and supporting reports and calculations must be prepared in accordance with the most recently approved "Engineering Policies and Standards" of the City of Moorpark and "Policy of Geometric Design of Highways and Streets," most recent edition, as published by the American Association of State Highway and Transportation Officials. In the case of conflict between the standards, specifications, and design manuals listed herein and above, the criteria that provide the higher level of quality and safety prevail as determined by the City Engineer and Public Works Director. Any standard specification or design criteria that conflicts with a Standard or Special Condition of Approval of this project must be modified to conform with the Standard or Special Condition to the satisfaction of the City Engineer and Public Works Director.

- Prior to issuance of a grading permit, final approved soils and geology reports must be submitted to the City Engineer and Public Works Director. The approved final report must encompass all subsequent reports, addendums, and revisions under a single cover. Where liquefaction hazard site conditions exist, an extra copy of the final report must be provided by the applicant to the City Engineer and Public Works Director and be sent by the applicant to the California Department of Conservation, Division of Mines and Geology in accordance with Public Resources Code Section 2697 within 30 days of report approval.

- Prior to issuance of the grading permit, a grading remediation plan and report must be submitted for review and approval of the City Engineer and Public Works Director. The report must evaluate all major graded slopes and open space hillsides whose performance could affect planned improvements. The slope stability analysis must be performed for both static and dynamic conditions, using an appropriate pseudo-static horizontal ground acceleration coefficient for earthquakes on faults, capable of impacting the project in accordance with standard practice as outlines in DMG Special Publication No. 117, 1997.

- Prior to issuance of a grading permit, a qualified, currently registered Professional Civil Engineer in good standing with the State of California shall be retained to prepare Erosion and Sediment Control Plans in conformance with the currently issued Ventura County Municipal Storm Water NPDES Permit. These Plans shall address, but not be limited to, construction impacts and long-term operational effects on downstream environments and watersheds. The Plans must consider all relevant NPDES requirements and recommendations for the use of the best available technology and specific erosion control measures, including temporary measures during construction to minimize water quality effects to the maximum extent practicable. Prior to the issuance of an initial grading permit, review and

approval by the Community Development Director and City Engineer and Public Works Director is required.

3.6.7.2 Mitigation Measures

The following mitigation measures, as presented in the geotechnical feasibility study, would reduce the potentially significant impacts to a less than significant level.

GS-1: The applicant shall conduct additional geotechnical work, consisting of soil borings and laboratory analysis, within the areas of the structures to better define the severity of liquefaction, settlement, and expansiveness conditions. Once the severity of these soil characteristics are determined, then appropriate measures contained within the geotechnical reports will be incorporated into the design of the project. Feasible techniques to mitigate any defined liquefaction, settlement, and expansive soils could include, but would not be limited to, (1) in-situ densification; (2) vibro replacement; (3) compaction grouting or chemical stabilization; or (4) deep foundations and self-supporting structural slabs, (5) over-excavation and replacement with properly compacted fill, and/or (6) design of foundation systems with appropriate thickness and reinforcing.

Timing/Implementation: Prior to grading permit issuance and as part of Improvement Plan approvals

Enforcement/Monitoring: City of Moorpark Public Works and Building Safety Departments

GS-2: All cut-and-fill slopes must be designed at a 2:1 [2(h) to 1(v)] gradient or less.

Timing/Implementation: Prior to grading permit issuance.

Enforcement/Monitoring: City of Moorpark Public Works Department

GS-3: Cut slopes exposing rock that exposes locally-adverse geologic conditions, expose sandy bedrock materials that are friable and prone to erosion, or where possible nuisance seepage issues could occur may require replacement with stabilization fill slopes. Stabilization fill slopes typically consists of removing the exposed slope face in a swath 10 to 15 feet wide (extending in from the slope face) and rebuilding the slope with compacted fill. All cut slopes shall be evaluated to confirm that no adverse geologic conditions are exposed at slope locations.

Timing/Implementation: During on-site grading activities

Enforcement/Monitoring: City of Moorpark Public Works Department

Paleontological Resources:

GS-4: Due to the potential that paleontological resources may be present on the Project site, the City of Moorpark shall require a note on any plans that require ground disturbing excavation that there is a potential for exposing buried paleontological resources. Construction personnel associated with earth moving equipment, drilling, grading, and excavating, shall be provided with basic training conducted by a qualified paleontologist, to be retained and compensated by the development team. Issues that shall be included in the basic training will be geared toward training the applicable construction crews in the identification of areas with the potential for containing paleontological deposits, further described below. Training will include written notification of the restrictions regarding disturbance and/or removal of any portion of paleontological deposits and the procedures to follow should a resource be identified. The construction contractor, or its designee, shall be responsible for implementation of this measure.

All project-related ground disturbances that could potentially impact the Saugus Formation and Quaternary older alluvium on site will be mapped by a qualified paleontological monitor, and provided to the construction crews during the aforementioned training. The paleontological monitor shall be available on-call as needed, when ground disturbing work is occurring in these areas, as these geologic units are determined to have a high paleontological sensitivity rating. Since younger alluvial and colluvial deposits cover the majority of the site and are considered to have a low paleontological sensitivity, monitoring of excavation activities in these units will be conducted on a part-time/on-call basis to ensure that no underlying sensitive units are being impacted.

Timing/Implementation: During ground moving activities

Enforcement/Monitoring: City of Moorpark Community Development Department, and the development team retained qualified paleontologist

GS-5: A qualified paleontologist as defined by the SVP Guidelines (2010) will be retained, and compensated by the development team, to supervise monitoring of construction excavations and to produce a mitigation plan for the Proposed Project. Paleontological monitoring will include inspection of exposed rock units during active excavations. The monitor will have authority to temporarily divert grading away from exposed fossils in order to professionally and efficiently recover the fossil specimens and collect associated

data. The qualified paleontologist will prepare monthly progress reports to be filed with the applicant and the lead agency.

Timing/Implementation: During ground moving activities

Enforcement/Monitoring: City of Moorpark Community Development Department, and the development team retained qualified paleontologist

GS-6: At each fossil locality, field data forms will be used to record pertinent geologic data, stratigraphic sections will be measured, and appropriate sediment samples collected and processed for analysis.

Timing/Implementation: During ground moving activities in event resource are discovered

Enforcement/Monitoring: City of Moorpark Community Development Department, and the development team retained qualified paleontologist

GS-7: Recovered fossils will be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and reposed in a designated paleontological curation facility. Potential repositories include the Natural History Museum of Los Angeles County and the Museum of Ventura County as determined by the Moorpark City Council.

Timing/Implementation: During ground moving activities in event resource are discovered

Enforcement/Monitoring: City of Moorpark Community Development Department, and the development team retained qualified paleontologist

GS-8: The qualified paleontologist shall prepare a final monitoring and mitigation report to be filed with the applicant, the lead agency, and the repository.

Timing/Implementation: During ground moving activities in event resource are discovered

Enforcement/Monitoring: City of Moorpark Community Development Department, and the development team retained qualified paleontologist

3.6.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project specific and cumulative residual impacts would be less than significant.

3.7 GREENHOUSE GAS EMISSIONS

INTRODUCTION

This section discusses the global, national, statewide, and City of Moorpark conditions related to greenhouse gases (GHG) and global climate change. This section also provides a discussion of the applicable federal, state, regional, and local agencies that regulate, monitor, and control GHG emission, and potential GHG impacts from implementation of the Plan. Calculations made to estimate GHG emissions associated with the Plan and supporting technical data are found in ***Appendix 3.7-A*** *of this environmental impact report (EIR).*

3.7.1 EXISTING CONDITIONS

3.7.1.1 Global Climate Change

Greenhouse Effect, Global Warming, and Climate Change

Most of the energy that affects the Earth's climate comes from the sun. Some solar radiation is absorbed by the Earth's surface, and a smaller portion of this radiation is reflected by the atmosphere back toward space. As the Earth absorbs high frequency solar radiation, its surface gains heat and then re-radiates lower frequency infrared radiation back into the atmosphere.[1]

Most solar radiation passes through gases in the atmosphere classified as GHGs; however, infrared radiation is selectively absorbed by GHGs. GHGs in the atmosphere play a critical role in maintaining the balance between the Earth's absorbed and radiated energy, the Earth's radiation budget[2], by trapping some of the infrared radiation emitted from the Earth's surface that otherwise would have escaped to space (see **Figure 3.7-1, The Greenhouse Gas Effect**). Radiative forcing is the difference between the incoming energy and outgoing energy.[3] Specifically, GHGs affect the radiative forcing of the atmosphere,[4] which in turn affects the Earth's average surface temperature. This phenomenon, *the greenhouse effect*, keeps the Earth's atmosphere near the surface warmer than it would be otherwise and allows successful habitation by humans and other forms of life.

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1 Frequencies at which bodies emit radiation are proportional to temperature. The Earth has a much lower temperature than the sun and emits radiation at a lower frequency (longer wavelength) than the high frequency (short-wavelength) solar radiation emitted by the sun.

2 This includes all gains of incoming energy and all losses of outgoing energy; the planet is always striving to be in equilibrium.

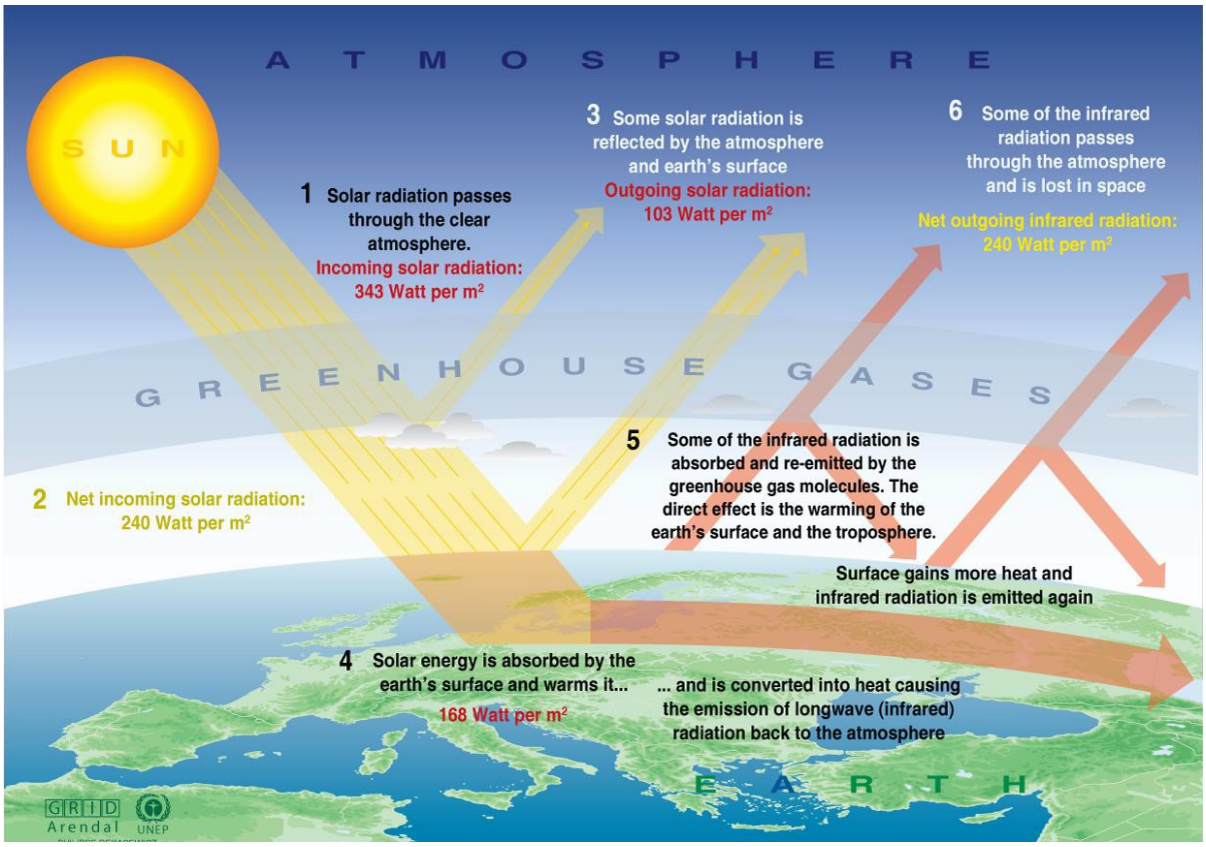
3 Positive forcing tends to warm the surface while negative forcing tends to cool it.

4 This is the change in net irradiance at the tropopause after allowing stratospheric temperatures to readjust to radiative equilibrium, but with surface and tropospheric temperatures and state held fixed at the unperturbed values.

Combustion of fossil fuels and deforestation release carbon into the atmosphere that historically has been stored underground in sediments or in surface vegetation, thereby exchanging carbon from the geosphere and biosphere to the atmosphere in the carbon cycle. With the accelerated increase in fossil fuel combustion and deforestation since the Industrial Revolution of the 19th century, concentrations of GHGs in the atmosphere have increased exponentially. Such emissions of GHGs in excess of natural ambient concentrations contribute to the enhancement of the natural greenhouse effect. This enhanced greenhouse effect has contributed to *global warming*, an increased rate of warming of the Earth's average surface temperature.[5] Specifically, increases in GHGs lead to increased absorption of infrared radiation by the Earth's atmosphere and warm the lower atmosphere further, thereby increasing temperatures and evaporation rates near the surface.

5 This condition results when the Earth has to work harder to maintain its radiation budget, because when more GHGs are present in the atmosphere, the Earth must force emissions of additional infrared radiation out into the atmosphere.

Figure 3.7-1 The Greenhouse Gas Effect



Source: United Nations Environmental Program/GRID-Arendal. 2005. Greenhouse Effect. Available: https://www.grida.no/resources/6467. Accessed August 12, 2021.

Variations in natural phenomena such as volcanoes and solar activity produced most of the global temperature increase that occurred during preindustrial times. More recently, however, increasing atmospheric GHG concentrations resulting from human activity have been responsible for most of the observed global temperature increase.[6]

Warming affects global atmospheric circulation and temperatures; oceanic circulation and temperatures; wind and weather patterns; average sea level; ocean acidification; chemical reaction rates; precipitation rates, timing, and form; snowmelt timing and runoff flow; water supply; wildfire risks; and other phenomena, in ways collectively referred to as climate change. Climate change is the alteration in the average weather of the Earth that is measured by modifications in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

Temperature Predictions

The United Nations Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios. The report also concluded that "[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic GHG concentrations." Warming of the climate system is now considered to be unequivocal, with the global surface temperature increasing about 1.33 degrees Fahrenheit (°F) over the last 100 years. The IPCC predicts increases in global average temperature of between 2°F and 11°F over the next 100 years.[7]

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6 These basic conclusions have been endorsed by more than 45 scientific societies and academies of science, including all of the national academies of science of the major industrialized countries. Since 2007, no scientific body of national or international standing has maintained a dissenting opinion.

7 Intergovernmental Panel on Climate Change (IPCC). 2007. AR4 Climate Change 2007: Synthesis Report. Available: https://www.ipcc.ch/report/ar4/syr/. Accessed August 12, 2021.

Greenhouse Gases and Global Emission Sources

Gases that trap heat in the atmosphere are referred to as GHGs. Prominent GHGs that naturally occur in the Earth's atmosphere are water vapor, carbon dioxide (CO_2), methane (CH4), oxides of nitrogen (NOX), and ozone. Anthropogenic (human-caused) GHG emissions include releases of these GHGs plus release of human-made gases with high global warming potential (GWP) (ozone-depleting substances such as chlorofluorocarbons [CFCs]) and aerosols, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). The GHGs listed by the IPCC (CO_2, methane, nitrous oxide, HFCs, PFCs, and SF6) are discussed below, in order of abundance in the atmosphere. Water vapor, despite being the most abundant GHG, is not discussed below, because natural concentrations and fluctuations far outweigh anthropogenic influences, making it impossible to predict. Ozone is not included, because it does not directly affect radiative forcing. Ozone-depleting substances (chlorofluorocarbons, halons, carbon tetrachloride, methyl chloroform, and hydrochlorofluorocarbons) are not included, because they have been replaced by HFCs and PFCs.

The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere and is essentially a measurement of the radiative forcing of a GHG compared with the reference gas, CO_2. Individual GHG compounds have varying potential for contributing to global warming. For example, methane is 25 times as potent as CO_2, while SF6 is 22,200 times more potent than CO_2 on a molecule-per-molecule basis. To simplify reporting and analysis, methods have been set forth to describe emissions of GHGs in terms of a single gas. The most commonly accepted method for comparing GHG emissions is the GWP methodology defined in the IPCC reference documents.[8] The IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalents (CO_2e), which compares the gas in question to that of the same mass of CO_2 (by definition, CO_2 has a GWP of 1). The global warming potential of a GHG is a measure of how much a given mass of a GHG is estimated to contribute to global warming. Thus, to describe how much global warming a given type and amount of GHG may cause, the CO_2e is used. A CO_2e is the mass emissions of an individual GHG multiplied by its global warming potential. As such, a high GWP represents high absorption of infrared radiation and a long atmospheric lifetime compared to CO_2. One must also select a time horizon to convert GHG emissions to equivalent CO_2 emissions to account for chemical reactivity and lifetime differences among various GHG species. The standard time horizon for climate change analysis is 100 years. Generally, GHG emissions are quantified in terms of metric tons (MT) CO_2e emitted per year.

8 Intergovernmental Panel on Climate Change (IPCC). 2014. Frequently Asked Questions. Available: https://www.ipcc-nggip.iges.or.jp/faq/FAQ.pdf. Accessed August 12, 2021.

The atmospheric residence time of a gas is equal to the total atmospheric abundance of the gas divided by its rate of removal.[9] The atmospheric residence time of a gas is, in effect, a half-life measurement of the length of time a gas is expected to persist in the atmosphere when accounting for removal mechanisms such as chemical transformation and deposition. Units commonly used to describe the concentration of GHGs in the atmosphere are parts per million (ppm), parts per billion (ppb), and parts per trillion (ppt), referring to the number of molecules of the GHG in a sampling of 1 million, 1 billion, or 1 trillion molecules of air. Collectively, HFCs, PFCs, and SF6 are referred to as high-GWP gases. CO_2 is by far the largest component of worldwide CO_2e emissions, followed by methane, nitrous oxide, and high-GWP gases, in order of decreasing contribution to CO_2e.

The primary human processes that release GHGs include the burning of fossil fuels for transportation, heating, and electricity generation; agricultural practices that release methane, such as livestock grazing and crop residue decomposition; and industrial processes that release smaller amounts of high-GWP gases. Deforestation and land cover conversion have also been identified as contributing to global warming by reducing the Earth's capacity to remove CO_2 from the air and altering the Earth's albedo or surface reflectance, thus allowing more solar radiation to be absorbed. Specifically, CO_2 emissions associated with fossil fuel combustion are the primary contributors to human-induced climate change. Carbon dioxide, methane, and nitrous oxide emissions associated with human activities are the next largest contributors to climate change. GHGs of California concern are defined by California Assembly Bill (AB) 32 and include CO_2, CH_4, NOX, HFCs, PFCs, and SF_6. A seventh GHG, nitrogen trifluoride (NF3), was also added under the California Health and Safety Code Section 38505(g)(7) as a GHG of concern. These GHGs are described below in terms of their GWP, atmospheric residence lifetime, and sources.[10]

- **Carbon Dioxide (CO_2)**. Carbon dioxide is generated primarily by fossil fuel combustion from stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources over the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 35 percent.[11] Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining

9 Seinfeld, J. H. and S.N. Pandis. 2006. Atmospheric Chemistry and Physics: From Air Pollution to Climate Change, 2nd Edition. New York. John Wiley & Sons.

10 All GWPs are given as 100-year GWP. Unless noted otherwise, all GWPs were obtained from the Intergovernmental Panel on Climate Change. *Climate Change 1995: The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the IPCC*. Cambridge (UK): Cambridge University Press, 1996.

11 US Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2006 (EPA 430-R-08-005)*, (2008) 1-3.

the GWP of other GHGs. Also, the atmospheric residence lifetime of carbon dioxide is 50 to 200 years. In 2004, 83.8 percent of California's GHG emissions were carbon dioxide.[12]

- **Methane (CH_4)**. Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation.[13] Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The GWP of methane is 21, and the atmospheric residence lifetime is 12.

- **Nitrous Oxide (N_2O)**. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 310, and the atmospheric residence lifetime is 114 years.

- **Chloro-fluoro-carbons (CFCs)**. CFCs are used as refrigerants, aerosol propellants, and cleaning solvents. The GWP of CFCs range from 45 to 640 years, and the atmospheric residence lifetime ranges from 45 to 640 years.

- **Hydrofluorocarbons (HFCs)**. HFCs typically are used as refrigerants in both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is growing, particularly as the continued phase-out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The GWP of HFCs range from 140 for HFC-152a to 6,300 for HFC-236fa, and the atmospheric residence lifetime ranges from 1 to 50,000 years.

- **Perfluorocarbons (PFCs)**. Perfluorocarbons are compounds consisting of carbon and fluorine. They primarily are created as a byproduct of aluminum production and semiconductor manufacturing. Perfluorocarbons are potent GHGs with a GWP several thousand times that of carbon dioxide, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years).[14] The GWPs of PFCs range from 5,700 to 11,900, and the atmospheric residence lifetime ranges from 10,000 to 50,000 years.

- **Sulfur Hexafluoride (SF_6)**. Sulfur hexafluoride is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and

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12 California Energy Commission, *Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004*, (2006).

13 US Environmental Protection Agency, "Methane: Sources and Emissions," http://www.epa.gov /methane/sources.html. n.d.

14 US Department of Energy, Energy Information Administration, "Other Gases: Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride," http://www.eia.doe.gov/oiaf/1605/gg00rpt/other_gases.html. n.d.

distributes electricity. Sulfur hexafluoride is the most potent GHG that has been evaluated by the IPCC with a GWP of 23,900, and an atmospheric residence lifetime of 3,200 years. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio, as compared to carbon dioxide (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm]).[15]

- **Nitrogen trifluoride (NF_3)**. Nitrogen trifluoride is used in electronic manufacture for semiconductors and liquid crystal displays. The GWP of NF_3 is 17,200, and the atmospheric residence lifetime is 740 years.

Global Climate Change Issue

Climate change is a global problem, because GHGs are global pollutants, unlike criteria air pollutants and hazardous air pollutants (i.e., toxic air contaminants) that are pollutants of regional and local concern. Pollutants with localized air quality effects have relatively short atmospheric lifetimes, approximately 1 day; by contrast, GHGs have long atmospheric lifetimes, several years to several thousand years. GHGs persist in the atmosphere for enough time to be dispersed around the globe.

Although the exact lifetime of particular GHG molecules depends on multiple variables and cannot be pinpointed, more CO_2 is currently emitted into the atmosphere than is sequestered. Carbon dioxide sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through photosynthesis and dissolution, respectively. These are two of the most common processes of CO_2 sequestration. Of the total annual human-caused CO_2 emissions, approximately 54 percent is sequestered through ocean uptake, Northern Hemisphere forest regrowth, and other terrestrial sinks within a year, whereas the remaining 46 percent of human-caused CO_2 emissions is stored in the atmosphere.[16]

Similarly, effects of GHGs are borne globally, as opposed to the localized air quality effects of criteria air pollutants and hazardous air pollutants. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known and cannot be quantified, and no single plan or project would be expected to measurably contribute to a noticeable incremental change in the global average temperature, or to global or local climates or microclimate. However, emissions of GHGs have the potential to adversely affect the environment, because such emissions contribute, on a cumulative basis, to global climate change.

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15 US Environmental Protection Agency, "High GWP Gases and Climate Change," http://www.epa.gov/highgwp/scientific.html#sf6. n.d.

16 Seinfeld, J. H. and S.N. Pandis. 1998. Atmospheric Chemistry and Physics from Air Pollution to Climate Change. New York. John Wiley & Sons.

Existing Greenhouse Gas Emissions

Global GHG Emissions

Worldwide anthropogenic emissions of GHG were approximately 46,000 million metric tons (MMT, or gigatonne) of CO_2e in 2010. Carbon dioxide emissions from fossil fuel combustion and industrial processes contributed about 65 percent of total emissions in 2010. Of anthropogenic GHGs, CO_2 was the most abundant accounting for 76 percent of total 2010 emissions. Methane (CH_4) emissions accounted for 16 percent of the 2010 total, while nitrous oxide (N_2O) and fluorinated gases account for six and two percent, respectively.[17]

United States GHG Inventory

Total U.S. GHG emissions were 6,676.6 MMT CO_2e in 2018. Total U.S. emissions increased by 3.7 percent from 1990 to 2018. Overall, net emission increase by 3.1 percent from 2017 to 2018 and decreased 10.2 percent from 2005 to 2018. The decrease from 2005 to 2018 reflects long-term trends, including energy market trends, technological changes including energy efficiency, and energy fuel choices. Between 2017 and 2018, the increase in emissions was driven by an increase in CO_2 emissions from fossil fuel combustion, which was a result of increased energy use from greater heating and cooling needs due to a colder winter and hotter summer in 2018 compared to 2017. In 2018, the largest source of CO_2 and of overall emissions, was fossil fuel combustion, representing approximately 81.3 percent of U.S. GHG emissions (see **Figure 3.7-2, 2018 U.S. GHG Emissions by Gas**). Methane (CH_4) accounted for nearly 10 percent, nitrous oxide (N_2O) accounted for approximately 6.5 percent, and the remaining 2.7 percent of U.S. GHG emissions were hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).[18]

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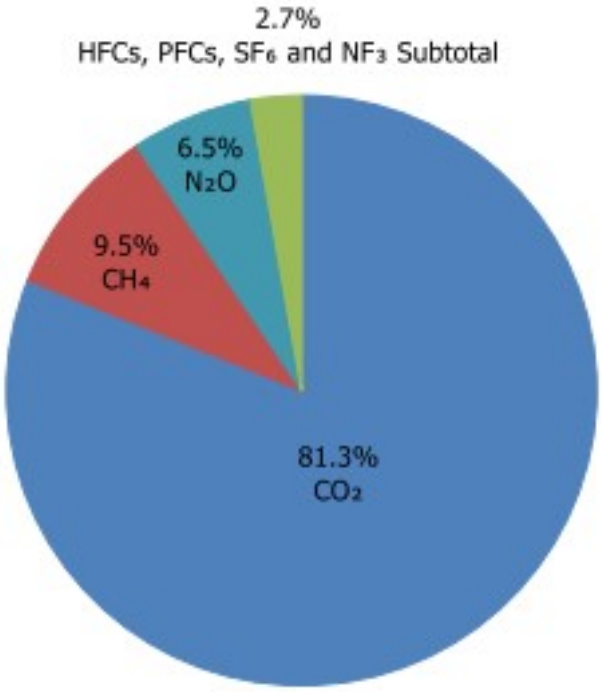
17 Intergovernmental Panel on Climate Change (IPCC). 2014. Summary for Policymakers. In: AR5 Climate Change 2014, Mitigation of Climate Change. Available: https://www.ipcc.ch/report/ar5/wg3/. Accessed August 12, 2021.

18 United States Environmental Protection Agency (US EPA). 2020. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018. Available: https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf. August 12, 2021.

Figure 3.7-2 2018 U.S. GHG Emissions by Gas



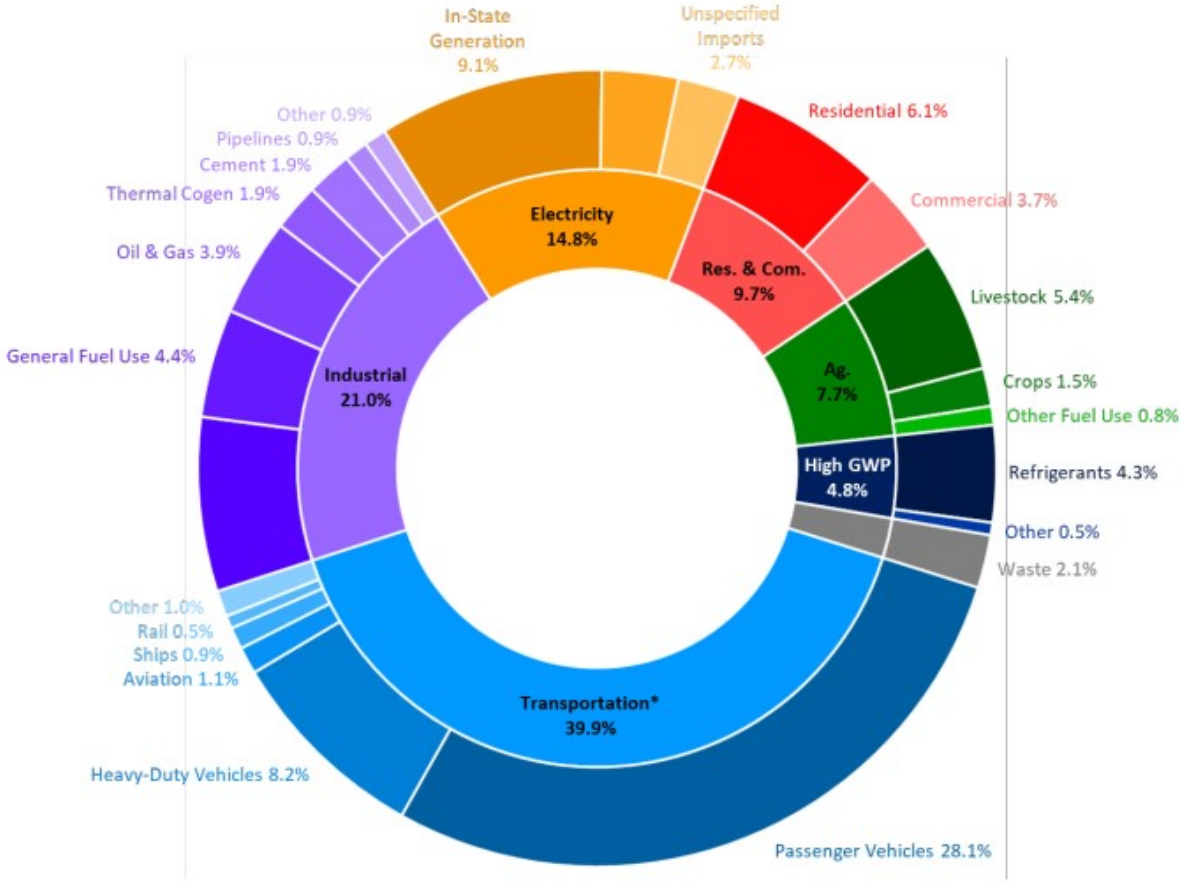
Source: USEPA, 2020. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018.

California GHG Inventory

According to the California Air Resources Board (CARB), total California GHG emissions were 425 MMT CO_2e in 2018 (see **Figure 3.7-3, 2018 California GHG Emissions by Scoping Plan Sectors and Sub-Sectors**). This was 0.8 $MMTCO_2e$ higher than 2017 levels. The major source of GHGs in California is associated with transportation, contributing nearly 40 percent of statewide GHG emissions in 2018. The industrial sector is the second largest source, contributing 21 percent of statewide GHG emissions, and the electricity sector accounted for approximately 15 percent.[19]

19 Source: CARB. 2020. California GHG Emissions for 2000 to 2018: Trends of Emissions and Other Indicators. Available: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf. Accessed August 12, 2021.

Figure 3.7-3 2018 California GHG Emissions by Scoping Plan Sectors and Sub-Sectors



Note: This figure breaks out 2018 California emissions by sector into an additional level of sub-sector categories. The inner ring shows the broad CARB Climate Change Scoping Plan sectors. The outer ring breaks out the sectors into sub-sectors or emission categories. The transportation sector represents tailpipe emissions from on-road vehicles and direct emissions from other off-road mobile sources; it does not include emissions from petroleum refineries and oil extraction and production, which are included in the industrial sector.

Source: CARB. 2020. California GHG Emissions for 2000 to 2018: Trends of Emissions and Other Indicators. Available: <https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf>. Accessed August 12, 2021.

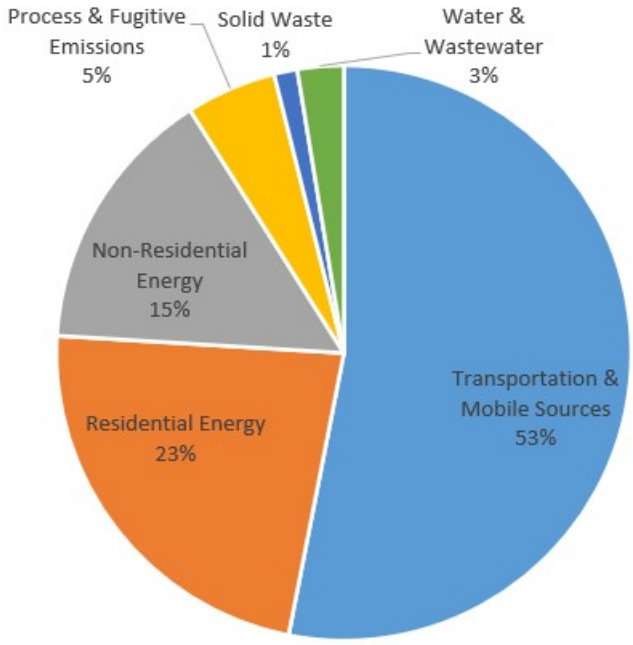
City of Moorpark GHG Inventory

The City of Moorpark 2010 community GHG emissions inventory follows the U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (Community Protocol), Version 1.1, which was developed as a guide for local governments to accurately account for GHG emissions associated with the communities that they represent. Moorpark GHG emissions are categorized into the following emissions sectors:

- Transportation and Mobile Sources
- Residential Energy
- Nonresidential Energy
- Process and Fugitive Emissions
- Solid Waste
- Water and Wastewater

The 2010 Moorpark GHG inventory is shown in **Figure 3.7-4, City of Moorpark 2010 GHG Emissions Inventory**, and summarized in **Table 3.7-1, City of Moorpark 2010 GHG Emissions Inventory**.

Figure 3.7-4: City of Moorpark 2010 GHG Emissions Inventory



Source: Ventura County Regional Energy Alliance. 2021. Draft Moorpark Energy and Sustainability Planning Document.

Table 3.7-1
City of Moorpark 2010 GHG Emissions Inventory

Transportation & Mobile Sources	VCTC GAS 2010	83	0.07%
	VCTC DSL 2010	124	0.10%
	HDT DSL 2010	4,668	3.91%
	HDT GAS 2010	2,175	1.82%
	LM GAS 2010	111,544	93.36%
	LM DSL 2010	305	0.26%
	Amtrak Passenger Rail 2010	400	0.35%
	Metrolink Passenger Rail 2010	177	0.15%
	Total	**119,476**	
Residential Energy	Residential Electricity 2010	24,138	46.88%
	Residential Non-Utility Fuels - Wood	0	0.00%
	Multi-Family Natural Gas 2010	4,820	9.36%
	Residential Non-Utility Fuels - Bottled, Tank, or LP gas	276	0.54%
	Single Family Natural Gas 2010	22,251	43.22%
	Total	**51,485**	
Nonresidential Energy	Commercial Electricity 2010	27,666	81.68%
	Commercial Natural Gas 2010	6,205	18.32%
	Total	**33,871**	
Process & Fugitive Emissions	High GWP 2010	11,432	100.00%
	Total	**11,432**	
Solid Waste	Solid Waste with Methane Collection	2,948	100.00%
	Solid Waste No Methane Collection	0	0.00%
	Total	**2,948**	
Water & Wastewater	Electricity used to import water (Calleguas Water District)	5,841	99.88%
	Nitrification/Denitrification Process N_2O Emissions from Wastewater Treatment	7	0.12%
	Total	**5,848**	
	Grand Total	***225,060***	

Source: Ventura County Regional Energy Alliance. 2021. Draft Moorpark Energy and Sustainability Planning Document.

Total GHG emissions in the City were approximately 225,060 $MTCO_2e$ in 2010. Transportation/mobile sources and residential energy constituted the two largest sources of Moorpark 2010 GHG emissions at 53 percent and 23 percent, respectively.

Climate Change Trends and Effects

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than was observed during the 20th century. Long-term trends found that each of the past four decades was warmer than all the previous decades in the instrumental record. The observed global mean surface temperature for the decade from 2006 to 2015 was 0.87°C higher than the global mean surface temperature over the period from 1850 to 1900. Several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations agree that LSAT and sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades.[20,21]

California

According to California's Fourth Climate Change Assessment, statewide temperatures from 1986 to 2016 were approximately 1°F to 2°F higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include loss in water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years. While there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy.[22]

In California, climate change may result in consequences such as the following:

- **A reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.

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20 Intergovernmental Panel on Climate Change (IPCC). 2014. Summary for Policymakers. In: AR5 Climate Change 2014, Mitigation of Climate Change. Available: https://www.ipcc.ch/report/ar5/wg3/. Accessed August 12, 2021.

21 Intergovernmental Panel on Climate Change (IPCC). 2018. Summary for Policymakers. In: Global warming of 1.5°C. An IPCC Special Report. Available: https://www.ipcc.ch/sr15/. Accessed August 12, 2021.

22 California, State of. 2018. California's Fourth Climate Change Assessment Statewide Summary Report. Available: http://www.climateassessment.ca.gov/state/. Accessed August 12, 2021.

- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the forests, grasslands and chaparral ecosystems of Southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant "fuel" available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.

- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.

- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be more days with weather conducive to ozone relative to today's conditions. This increase in air quality problems could result in an increase in asthma and other health-related problems.

- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

- **An increase temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.

- **A decrease in the health and productivity of California's forests.** Climate change can cause an increase in wildfires, an enhanced nuisance insect population, and establishment of non-native species.

Greater Los Angeles Region (Including Ventura County)

In addition to statewide projections, *California's Fourth Climate Change Assessment* includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state as well as regionally-specific climate change case studies, including for the greater Los Angeles region that includes

Ventura County where the proposed Plan is located. Below is a summary of some of the potential effects that could be experienced in California and the greater Los Angeles region because of climate change.[23]

In the greater Los Angeles region, climate change may impact the following aspects:

- **Air Quality.** In the Los Angeles region, changes in meteorological conditions under climate change will affect future air quality. Regional stagnation conditions may occur more often in the future, which would increase pollutant concentrations. Hotter future temperatures will act to increase surface ozone concentrations both due to chemistry producing more ozone and higher rates of biogenic emissions, while increases of water vapor also influence chemistry by increasing ozone production in already polluted areas.

- **Water Supply.** Like the rest of the state, the Los Angeles region is expected to face a challenging combination of decreased water supply and increased water demand. Greater interannual variability of rainfall and sharp decreases in snowpack will create surface water limitations for the region. Although the effect of climate change on average precipitation in the region is still unclear, more frequent occurrences of extreme events similar to the 2011-2016 drought could significantly decrease groundwater recharge, which is essential for the sustainability of agriculture in the region since the vast majority of water used in agriculture in the region is groundwater from local wells. Furthermore, higher temperatures mean that dry years will more quickly develop into severe drought conditions.

- **Hydrology and Sea Level Rise.** In the Los Angeles region, despite small changes in average precipitation, dry and wet extremes are both expected to increase. By the late 21st century, the wettest day of the year is expected to increase across most of the region. Increased frequency and severity of atmospheric river events are also projected to occur for this region.

- **Agriculture.** In the Los Angeles region, more frequent droughts could significantly decrease groundwater recharge and therefore impact agricultural operations that use groundwater from local wells. This and other climate effects can contribute to higher food prices and shortages. In addition, pest and disease issues with crops are anticipated to increase.

- **Ecosystems and Wildfire.** Many of the impacts identified above would impact ecosystems and wildlife in the Los Angeles region. Increases in wildfire would further remove sensitive habitat;

23 California, State of. 2018. California's Fourth Climate Change Assessment Los Angeles Region Report. Available: http://www.climateassessment.ca.gov/regions/docs/20180928-LosAngeles.pdf. Accessed August 12, 2021.

increased severity in droughts would potentially starve plants and animals of water; and sea level rise will affect sensitive coastal ecosystems.[24]

3.7.2 REGULATORY FRAMEWORK

3.7.2.1 International Regulations

Paris Climate Change Agreement

The Paris Climate Agreement is an international treaty on climate change adopted on December 12, 2015. The goal of the agreement is to limit global warming to 1.5 degrees Celsius as compared to pre-industrial levels. Countries will aim to reach global peaking of GHG emissions as soon as possible to achieve a climate neutral world by mid-century. In order to achieve these reductions, the Paris Climate Agreement works on a 5-year cycle of increasingly ambitious climate action carried out by countries. Therefore, by 2020, countries were required to submit their plans for climate action, known as nationally determined contributions. Additionally, the Agreement provides a framework for financial, technical and capacity building support to those countries who need it. Developed counties will take a lead in providing financial assistance to other countries since large scale investments are required for GHG mitigation and climate adaptation.[25]

The United States joined 190 other countries in the Paris Climate Agreement under the Obama administration in September 2016.[26] Under the Trump administration, the former President announced his intention to withdraw from the Agreement in June 2017 and formally notified the United Nations in November 2019. However, the Agreement requires a year-long waiting period before a formal withdrawal will be recognized. As a result, the United States officially withdrew the Agreement in November 2020.[27] However, on January 20, 2021, President Biden accepted and rejoined the Paris Climate Agreement.[28]

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24 California, State of. 2018. California's Fourth Climate Change Assessment Los Angeles Region Report. Available: http://www.climateassessment.ca.gov/regions/docs/20180928-LosAngeles.pdf. Accessed August 12, 2021.

25 United Nations. *The Paris Agreement*. Available online at https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement. Accessed July22, 2021.

26 The White House. *President Obama: The United States Formally Entered the Paris Agreement*. Available online at: https://obamawhitehouse.archives.gov/blog/2016/09/03/president-obama-united-states-formally-enters-paris-agreement. Accessed July22, 2021

27 NPR. *U.S. Officially Leaving Paris Climate Agreement*. Available online at: https://www.npr.org/2020/11/03/930312701/u-s-officially-leaving-paris-climate-agreement. Accessed July22, 2021

28 The White House. 2021. *Paris Climate Agreement*. Available online at: https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/. Accessed July22, 2021

3.7.2.2 Federal Regulations

Clean Air Act (Regulation of GHGs)

The United States Environmental Protection Agency (US EPA) issued an Endangerment Finding under Section 202(a) of the Clean Air Act (CAA), opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA. To date, the US EPA has not promulgated regulations on GHG emissions, but it has already begun to develop them.

Federal Fuel Efficiency Standards (CAFE)

Under the CAA, corporate average fuel efficiency (CAFE) standards have been set for passenger cars and light trucks. California has traditionally had a waiver to set its own more stringent fuel efficiency standards. However, on August 2, 2018, the National Highway Traffic Safety Administration (NHTSA) and US EPA, operating under the direction of the Trump Administration, proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule). This rule addresses emissions and fuel economy standards for motor vehicles and is separated in two parts as described below.

- Part One, "One National Program" (84 FR 51310) revokes a waiver granted by US EPA to California under Section 209 of the CAA to enforce more stringent emission standards for motor vehicles than those required by US EPA for the explicit purpose of GHG reduction, and indirectly, criteria air pollutants and ozone precursor emission reduction. This revocation became effective on November 26, 2019, potentially restricting the ability of CARB to enforce more stringent GHG emission standards for new vehicles and set zero emission vehicle mandates in California.
- Part Two addresses CAFE standards for passenger cars and light trucks for model years 2021 to 2026. This rulemaking proposes new CAFE standards for model years 2022 through 2026 and would amend existing CAFE standards for model year 2021. The proposal would retain the model year 2020 standards (specifically, the footprint target curves for passenger cars and light trucks) through model year 2026. The proposal addressing CAFE standards was jointly developed by NHTSA and US EPA, with US EPA simultaneously proposing tailpipe CO_2 standards for the same vehicles covered by the same model years.

US EPA and NTHSA published final rules to amend and establish national CO_2 and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 FR 24174). California and 22 other states are currently challenging this new rule in the court system, and it is reasonably foreseeable that

California will be successful in its legal challenges, for the reasons outlined in California's lawsuit[29] and on the CARB website. Furthermore, on January 20, 2021, President Biden signed an executive order directing the Government to revise fuel economy standards with the goal of further reducing emissions.[30] In February 2021 the Biden administration Department of Justice also asked courts to put the litigation on hold while the administration "reconsidered the policy decisions of a prior administration." Most Recently, on April 22, 2021 the Biden Administration formally proposed to roll back portions of the SAFE Rule, thereby restoring California's right to enforce more stringent fuel efficiency standards.[31]

It is, however, legally infeasible for individual agencies, in this case the City of Moorpark, to adopt more stringent fuel efficiency standards for commuter vehicles. The CAA (42 United States Code [USC] Section 7543[a]) states that "no state or any political subdivision therefore shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part." Therefore, Moorpark abides by federal and California transportation fuel efficiency standards related to commuter vehicles.

Construction Equipment Fuel Efficiency Standard

US EPA sets emission standards for construction equipment. The first federal standards (Tier 1) were adopted in 1994 for all off-road engines over 50 horsepower (hp) and were phased in by 2000. A new standard was adopted in 1998 that introduced Tier 1 for all equipment below 50 hp and established the Tier 2 and Tier 3 standards. The Tier 2 and Tier 3 standards were phased in by 2008 for all equipment. The current iteration of emissions standards for construction equipment are the Tier 4 efficiency requirements are contained in 40 Code of Federal Regulations Parts 1039, 1065, and 1068 (originally adopted in 69 Federal Register 38958 [June 29, 2004], and most recently updated in 2014 [79 Federal Register 46356]). Emissions requirements for new off-road Tier 4 vehicles were to be completely phased in by the end of 2015.

U.S. Consolidated Appropriations Act (Mandatory GHG Reporting)

The Consolidated Appropriations Act, passed in December 2007, required the establishment of mandatory GHG reporting requirements. On September 22, 2009, the US EPA issued the Final Mandatory

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29 *State of California et al. v. Chao et al.* (Case 1:19-cv-02826) Available at: https://oag.ca.gov/system/files/attachments/press_releases/California%20v.%20Chao%20complaint%20%28000002%29.pdf. Accessed August 12, 2021.

30 The White House Briefing Room. https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/. Accessed August 12, 2021.

31 U.S. News & World Report Biden to Restore California's Power to Set Pollution Rules | California News | US News, Accessed August 12, 2021.

Reporting of Greenhouse Gases Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the U.S., and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the US EPA. The first annual reports for the largest emitting facilities, covering calendar year 2010, were submitted to US EPA in 2011.

3.7.1.3 State Regulations

California Code of Regulations Title 24 (California Building Standards Code)

Updated every three years through a rigorous stakeholder process, Title 24 of the California Code of Regulations requires California homes and businesses to meet strong energy efficiency measures, thereby lowering their energy use. Title 24 contains numerous subparts, including Part 1 (Administrative Code), Part 2 (Building Code), Part 3 (Electrical Code), Part 4 (Mechanical Code), Part 5 (Plumbing Code), Part 6 (Energy Code), Part 8 (Historical Building Code), Part 9 (Fire Code), Part 10 (Existing Building Code), Part 11 (Green Building Standards Code), Part 12 (Referenced Standards Code). The California Building Code is applicable to all development in California. (Health and Safety Code §§ 17950 and 18938(b).)

The regulations receive input from members of industry, as well as the public, with the goal of "[r]educing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy." (Pub. Res. Code § 25402.) These regulations are carefully scrutinized and analyzed for technological and economic feasibility (Pub. Res. Code § 25402(d)) and cost effectiveness (Pub. Res. Code § 25402(b)(2) and (b)(3)).

PART 6 – BUILDING ENERGY EFFICIENCY STANDARDS

CCR Title 24 Part 6 is the Building Energy Efficiency Standards. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. The Building Energy Efficiency Standards is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. New construction and major renovations must demonstrate their compliance with the current Building Energy Efficiency Standards through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission. Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards, and residential buildings will be seven percent more energy efficient. When accounting for the electricity generated by the solar photovoltaic (PV) system, residential buildings would use 53 percent less energy compared to buildings built to the 2016 standards.

The 2019 Building Energy Efficiency Standards, adopted on May 9, 2018, became effective on January 1, 2020. The 2019 Standards move toward cutting energy use in new residential units by more than 50 percent and will require installation of solar PV systems for single-family homes and multi-family buildings of three stories and less. The 2019 Standards focus on four key areas: 1) smart residential PV systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements. Under the 2019 Standards, non-residential buildings will be 30 percent more energy-efficient compared to the 2016 Standards, and single-family homes will be seven percent more energy efficient.

PART 11 – CALIFORNIA GREEN BUILDING STANDARDS

The California Green Building Standards Code, referred to as CALGreen, was added to CCR Title 24 as Part 11 first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 CBC). The 2019 CALGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. It also includes voluntary tiers (I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory Green Building Standards and may adopt additional amendments for stricter requirements.

Mandatory standards require:

- 20 percent reduction in indoor water use relative to specified baseline levels;
- 50 percent construction/demolition waste diverted from landfills;
- Inspections of energy systems to ensure optimal working efficiency;
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards; and
- Installation of EV charging stations at least three percent of the parking spaces for all new multi-family developments with 17 or more units.

Similar to the compliance reporting procedure for demonstrating Building Energy Efficiency Standards compliance in new buildings and major renovations, compliance with the CALGreen water-reduction requirements must be demonstrated through completion of water use reporting forms for new low-rise residential and non-residential buildings. Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

Assembly Bill 1493 (Pavley Regulations and Fuel Efficiency Standards)

In response to the transportation sector's contribution of more than half of California's CO_2 emissions, Assembly Bill 1493 (AB 1493, Pavley) was enacted on July 22, 2002. AB 1493 requires the California Air Resources Board (CARB) to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles whose primary use is noncommercial personal transportation. However, before these regulations go into effect, the US EPA must grant California a waiver under the federal CAA, which ordinarily preempts state regulation of motor vehicle emission standards. On June 30, 2009, the US EPA formally approved California's waiver request. However, in light of the September 15, 2009 announcement by the US EPA and NHTSA regarding the national program to reduce vehicle GHG emissions, California—and states adopting California emissions standards—have agreed to generally defer to the proposed national standard through model year 2016 if granted a waiver by the US EPA. The 2016 endpoint of the two standards is similar, although the national standard ramps up slightly more slowly than required under the California standard. The Pavley standards require additional reductions in CO_2 emissions beyond 2016 (referred to as Phase II standards). The Phase II standards are currently in development for the 2017-2025 model years.

Assembly Bill 32 (Global Warming Solutions Act and Scoping Plan)

California's major initiative for reducing GHG emissions is outlined in Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006," which was signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 limit of 427 million MTCO2e. The Scoping Plan was approved by CARB on December 11, 2008 and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since approval of the Scoping Plan.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan Update defined CARB's climate change priorities for the next five years and set the groundwork to reach post-2020 statewide goals. The 2013 Scoping Plan Update highlighted California's progress toward meeting the 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the state's longer-term GHG reduction strategies with other state policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use.

Senate Bill 32 (Global Warming Solutions Act and Scoping Plan Extension)

Senate Bill (SB) 32 signed into law on September 8, 2016, tightens the requirements of AB 32 by requiring California to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies, such as SB 350 and SB 1383. The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with statewide per capita goals of 6 $MTCO_2e$ by 2030 and 2 $MTCO_2e$ by 2050. As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for individual projects because they include all emissions sectors in the state.

Executive Order B-55-18

On September 10, 2018, Governor Brown issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 32, SB 100, SB 375, and SB 1383.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)

SB 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPOs) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. Southern California Association of Governments (SCAG) was assigned targets of an eight percent reduction in GHGs from transportation sources by 2020 and a 19 percent reduction in GHGs from transportation sources by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements.

Senate Bill 97 and CEQA Guidelines Update

SB 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in CEQA documents. In March 2010, the California Natural Resources Agency adopted amendments to the CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts.

Senate Bill 100 (100 Percent Clean Energy Act)

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating California's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Senate Bill 1383 (Short Lived Climate Pollutants)

Adopted in September 2016, SB 1383 requires the CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. The bill requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

Assembly Bill 341/Assembly Bill 1826 (Mandatory Recycling/Composting)

The California Integrated Waste Management Act of 1989, as modified by AB 341, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows diversion away from landfills of 75 percent of all solid waste by 2020 and annually thereafter. AB 1826 requires recycling of organic waste (i.e., composting). All businesses and public entities that generate four or more cubic yards of solid waste per week and multi-family residential dwellings that have five or more units are required to recycle and compost.

Model Water Efficient Landscape Ordinance

The revised California Model Water Efficient Landscape Ordinance became effective on December 15, 2015. New development that includes landscaped areas of 500 square feet or more are subject to the following revised Ordinance requirements:

- More efficient irrigation systems
- Incentives for graywater usage
- Improvements in on-site stormwater capture
- Limiting the portion of landscapes that can be planted with high water use plants
- Reporting requirements for local agencies.

3.7.1.4 Regional Regulations

Southern California Association of Governments (SCAG) RTP/SCS

The SCAG Regional Council formally adopted the Connect SoCal 2020–2045 RTP/SCS (Connect SoCal) on September 3, 2020. Rooted in the 2012 and 2016 RTP/SCS plans, Connect SoCal's "Core Vision" focuses on maintaining and enhancing management of the transportation network while also expanding mobility choices by creating hubs that connect housing, jobs, and transit accessibility. The "Core Vision" of Connect SoCal is organized into six key focus areas that expand upon progress made in the 2016-2040 RTP/SCS: Sustainable Development, System Preservation and Resilience, Demand & System Management, Transit Backbone, Complete Streets, and Goods Movement. Connect SoCal incorporates a range of best practices for increasing transportation choices, reducing dependence on personal automobiles, further improving air quality and reducing GHG emissions, and encouraging growth in walkable, mixed-use communities with convenient access to transit infrastructure and employment. A new component of the Connect SoCal plan is the Regional Growth Forecast, which was developed to project expected population, households, and jobs at the jurisdictional level throughout the 191 cities and unincorporated SCAG areas through 2045. Strategies to guide integrated land use development decisions and transportation investments to achieve regional goals are provided in the Connect SoCal Growth Vision, which informed SCAG's Forecasted Development Pattern.

Each of the six key focus areas in Connect SoCal contains strategies to achieve the intended holistic objectives of the Connect SoCal Growth Vision. The Sustainable Development focus area is the portion of the planning document dedicated to the SCS, which is the most directly applicable element to GHG emissions. The SCS evaluated the following Priority Growth Areas (PGAs) that were selected and developed based on their ability to support potential mode shift and shortened trip distances:

- Transit Priority Areas (TPAs) are defined as an area within one-half mile of a major transit stop that is existing or planned. This includes an existing rail or bus rapid transit station, a ferry terminal served by bus or rail transit service, or the intersection of two or more major bus routes

with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.[32]

- High Quality Transit Areas (HQTAs) are generally walkable transit villages or corridors, consistent with the adopted RTP/SCS that are within one half-mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. Freeway transit corridors with no bus stops on the freeway alignment do not have a directly associated HQTA. A high-quality transit corridor (HQTC) is defined as a corridor with fixed route bus service containing intervals no longer than 15 minutes during peak commute hours.[33]

- Livable Corridors refer to an arterial network that is a subset of the HQTAs based on level of transit service and land use planning efforts.

- Neighborhood Mobility Areas (NMAs) are areas with high intersection density (generally 50 intersections per square mile or more), low to moderate traffic speeds and robust residential retail connections which can support the use of Neighborhood Electric Vehicles or active transportation for short trips.

- Job Centers are areas with significantly higher employment density than surrounding areas.

Connect SoCal devised a growth priority hierarchy in order to optimize opportunities for shorter trip distances and drivers to switch to electric vehicles, which directs growth towards the areas described above in the following order: TPAs, Livable Corridors, Job Centers, HQTAs, and NMAs. Development in these areas will be guided by the following Connect SoCal strategies to reduce GHG emissions: focusing growth near destinations and mobility options; promoting diverse housing choice; leveraging technology innovations; supporting implementation of sustainability policies; and promoting a green region. SCAG, in conjunction with CARB, determined that implementation of Connect SoCal would achieve regional GHG reductions relative to 2005 SCAG areawide levels of approximately eight percent in 2020 and approximately 19 percent by 2045.[34] The regional GHG emissions reductions achieved through the Connect SoCal Growth Vision are consistent with the regional targets set forth by CARB through SB 375.

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32 PRC Section 21099 (a)(7) and Section 21064.3.

33 PRC Section 21155(b).

34 SCAG, *Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*, https://scag.ca.gov/connect-socal#:~:text=Connect%20SoCal%20%E2%80%93%20The%202020%2D2045,environmental%20and%20public%20health%20goals. July 21, 2021.

3.7.3 THRESHOLDS OF SIGNIFICANCE

3.7.3.1 CEQA Significance Criteria

In accordance with *CEQA Guidelines* (Appendix G), the following significance threshold criteria should be used to evaluate the potential GHG impacts of proposed projects. The project would have a significant GHG emissions impact if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or

- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

3.7.3.2 Methodology

GHG emissions result from both direct and indirect sources. Direct emissions include emissions from fuel combustion in vehicles and natural gas combustion from stationary sources. Indirect sources include off-site emissions occurring as a result of electricity and water consumption and solid waste. In addition, construction activities would result in direct and indirect emissions.

The criteria air pollution and GHG emissions impacts created by the Proposed Project have been analyzed through use of California Emissions Estimator Model (CalEEMod) Version 2020.4.0. CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. The CalEEMod program uses Emission Factor (EMFAC), a model that estimates the official emissions inventories of on-road mobile sources in California. The EMFAC2017 computer program calculates the emission rates specific for the VCAPCD regions for construction worker, vendor and haul truck vehicle trips during construction and a variety of vehicle trip types during operation as well as the OFFROAD2011 computer program to calculate emission rates for heavy equipment operations. EMFAC2017 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. The project characteristics in the CalEEMod model were set to a project location of VCAPCD, a Climate Zone of 8, and a utility company of Southern California Edison. The plan's opening year was set to 2030 for the GHG emissions analysis to provide an accurate comparison with the locally-applicable, Plan-specific threshold discussed below that is based on California's year 2030 GHG emission reduction target under SB 32. The construction schedule was provided by the Project Applicant and includes the phased buildout outlined in **Table 2.0-3** in **Section 2.0, Project Description**. Construction equipment used for each phase was based on CalEEMod defaults. It was assumed Phase 1 would involve

approximately 3.9 million cubic yards of earth material movement and Phase 3 would involve approximately 1.5 million cubic yards of earth material movement; however, grading would be balanced on-site with no off-site export or import required. The CalEEMod default estimates for construction worker and vendor trips for the building construction and architectural coating phases as well as the default estimates for the square footage for exterior and interior architectural coating were adjusted to reflect the proportion of plan buildout anticipated for each construction sub-phase.[35] For Project operation, the default trip length values for residential land uses were adjusted to match the Project's estimated 33,585 daily VMT, or 12,258,525 annual VMT, which is based on the VMT analysis contained in **Section 3.15, Transportation**. The operational emissions modeling also included the assumption that the Project would comply with the 2019 California Building Standards Code (at a minimum), which includes the following requirements:

- In accordance with Section 150.1(b)14 of the 2019 Building Energy Efficiency Standards, all new residential uses three stories or less must install solar PV panels that generate an amount of electricity equal to expected electricity usage. Therefore, it was assumed that 100 percent of electricity usage for the approximately 193 low-rise multifamily residences and approximately 427 single-family residences would be supplied by solar PV panels.

- Development under the proposed Specific Plan would be subject to 2019 CALGreen, which requires a 20 percent increase in indoor water use efficiency and use of water-efficient irrigation systems. CalEEMod does not incorporate water use reductions achieved by CALGreen. Thus, in order to account for compliance with CALGreen, a 20 percent reduction in indoor water use and the use of water-efficient irrigation systems were included in the water consumption calculations for the proposed Specific Plan.

In addition, although not required by Title 24, the project would include a rooftop solar system sized at approximately 112 kilowatts for the proposed four-story building that would accommodate the approximately 135 affordable apartment units. In Ventura County, the energy production factor for solar PV systems is approximately 1,900 kilowatt hours per kilowatt of solar PV system (United States Department of Energy 2003). Therefore, approximately 212,800 kilowatt-hours of energy consumption for the proposed four-story building would be supplied by the rooftop solar energy system, which was accounted for in the CalEEMod modeling.

[35] By default, CalEEMod assumes full plan buildout during each building construction and architectural coating phase. Therefore, adjustments are necessary to account for the proposed phased buildout of the Specific Plan.

The GHG emissions modeling outputs for the proposed Plan also represent conservative emissions results, given that CalEEMod Version 2020.4.0 does not yet account for additional state-level GHG reductions anticipated with implementation of the following requirements:

- Senate Bill 100 (electricity providers to increase renewably sourced energy to 60 percent clean energy by 2030 and 100 percent clean energy by 2045)
- Senate Bill 1383 (40 percent reduction in methane, 40 percent reduction in hydroflourocarbons, and 50 percent reduction in black carbon compared to 2013 levels by 2030); and
- Assembly Bill 341 and Assembly Bill 1826 (recycling and composting to divert at least 75 percent of materials from being landfilled).

3.7.3.3 CEQA Thresholds of Significance

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence on climate change. However, physical changes caused by a plan or project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a plan or project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15064[h][1]). For determining the significance of GHGs, a GHG emissions efficiency plan threshold of 2.10 MT of CO_2e per resident per year was utilized for the Plan. The methodology used to determine this threshold is detailed in the following paragraphs below; this threshold is intended to be consistent with the state goal of reducing emissions to 40 percent below 1990 levels by 2030.

Accordingly, a 2030 GHG efficiency threshold can be calculated to represent the rate of emissions reduction necessary for the Plan to achieve a fair share of statewide GHG reductions necessary to meet post-2020 SB 32 targets.[36] With the release of the 2017 Climate Change Scoping Plan Update, CARB recognized the need to balance population growth with emissions reductions and in doing so, provided a new local plan level methodology for target setting that provides consistency with state GHG reduction

[36] The *Cleveland National Forest Foundation vs. San Diego Association of Governments* (2017) case established that a GHG reduction goal established by executive order does not have to be used as significance threshold for the purposes of CEQA because it is not a binding legal mandate and does not include an adopted plan that demonstrates a discrete pathway to achieving that goal. In light of that case ruling, this analysis does not use the carbon neutrality goal set forth by EO B-55-18 as a significance threshold. Rather, this analysis uses the GHG reduction targets established by SB 32, which is a legal mandate, and the 2017 Scoping Plan, which is an adopted plan that demonstrates a discrete pathway to achieving the GHG reduction targets of SB 32.

goals using per capita efficiency targets. These statewide per capita targets account for all emissions sectors in the state, statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the 2045 statewide target under EO B-55-18. To determine whether the Plan would impede substantial progress toward achieving the emissions reduction targets established by SB 32 and EO B-55-18, this EIR establishes a 2030 GHG emissions target to meet GHG reductions consistent with SB 32 and on a trajectory to achieve the goals in EO B-55-18. The 2030 GHG emission target represents the emissions reductions necessary for the Plan to achieve a fair share of statewide GHG reductions necessary to meet the state's long-term targets. The following details how the Plan-specific GHG efficiency threshold was calculated.

For the proposed Specific Plan, a 2030 efficiency threshold was calculated based on the year 2030 GHG emission levels for Moorpark that would be consistent with the state's 2030 target. This locally appropriate, plan-specific quantitative threshold is derived, in part, from the City's baseline 2010 GHG emissions inventory in line with the CARB's recommendations in the 2008 Climate Change Scoping Plan and the 2017 Climate Change Scoping Plan Update. Consistent with the legal guidance provided in the Golden Door (2018) and Newhall Ranch (2015) decisions regarding the correlation between state and local conditions, the City's 2010 baseline GHG emissions inventory was used to calculate a locally-appropriate, evidence-based, plan-specific threshold consistent with the state's 2030 target. Accordingly, the threshold established for this EIR is a locally-applicable, plan-specific threshold, as opposed to a threshold for general use.

The County of Ventura completed a 2010 baseline GHG emissions inventory for Moorpark that calculated communitywide emissions of 225,060 MT of CO_2e per year. However, because the proposed Specific Plan consists primarily of residential land uses with ancillary recreational land uses, only those portions of the 2010 baseline GHG inventory associated with residential land uses are appropriate to use in developing a Plan-specific threshold. Therefore, the 2010 baseline inventory was adjusted to remove emissions associated with nonresidential energy usage and to proportionally allocate a share of the transportation and mobile source emissions, process and fugitive emissions, solid waste emissions, and water/wastewater emissions to residential land uses based on the 2010 service population (residents plus employees) of Moorpark. **Table 3.7-2**, **City of Moorpark Baseline Inventory – 2010 (Adjusted for Residential Land Uses)**, summarizes the 2010 baseline GHG emissions inventory and details how the inventory was adjusted to calculate the proportion of communitywide GHG emissions attributed to residential land uses. As shown therein, approximately 157,803 MT of CO_2e per year of the 2010 baseline inventory is attributed to residential land uses.

Table 3.7-2
City of Moorpark Baseline Inventory – 2010 (Adjusted for Residential Land Uses)

Source	2010 Total (MT of CO_2e)[1]	Per Service Person (MT of CO_2e)[2, 3]	Total Attributed to Residential Land Uses (MT of CO_2e)[4]
Transportation & Mobile Sources	119,476	2.64	90,902
Residential Energy	51,485	No Adjustment Needed – Residential Only	51,485
Nonresidential Energy	33,871	N/A	N/A
Process and Fugitive Emissions	11,432	0.25	8,698
Solid Waste	2,948	0.07	2,243
Water & Wastewater	5,848	0.13	4,475
Total Emissions	225,060		157,803

MT = metric tons; CO_2e = carbon dioxide equivalents

[1] Source: County of Ventura 2021

[2] Based on a citywide 2010 service population for Moorpark of 34,421 residents (California Department of Finance 2021) and 10,820 jobs (Southern California Association of Governments 2019).

[3] Calculations assume emissions from each sector are distributed equally among each resident and employee in the city.

[4] Based on a citywide 2010 population of 34,421 residents for Moorpark (California Department of Finance 2021).

Source: City of Moorpark, and Rincon Consultants, Inc. August 2021.

The total 2010 baseline GHG emissions attributed to residential land uses were then used to calculate a plan-specific GHG emissions threshold for year 2030 based on the state's GHG emission reduction targets under Assembly Bill 32 and Senate Bill 32. Assembly Bill 32 set a statewide target of reducing GHG emissions to 1990 levels by 2020. Therefore, for the City of Moorpark to be consistent with Assembly Bill 32, annual GHG emissions levels from residential land uses would need to have been reduced by 15 percent below baseline 2010 levels by 2020 to approximately 134,133 MT of CO_2e per year.[37] In addition, the state set a statewide GHG emission reduction target of 40 percent below 1990 levels in Senate Bill 32. Therefore, annual GHG emissions levels from residential land uses would need to be reduced by 40 percent below 1990 levels to approximately 80,480 MT of CO_2e per year to be consistent with the state's 2030 target. The 2030 plan-specific residential efficiency threshold can thus be calculated by dividing the

37 A 2020 GHG emissions inventory has not been completed for Moorpark; therefore, it is not known if existing communitywide GHG emissions have sufficiently declined to achieve this level. However, whether existing communitywide GHG emissions have been reduced by 15 percent below baseline 2010 levels does not affect the calculation of the threshold of significance because the threshold is calculated using the baseline 2010 GHG emissions inventory and the State's targets, which remain the same regardless of the current state of communitywide GHG emissions.

total communitywide GHG emissions target for residential land uses by the communitywide residential population for year 2030. The City's 2030 residential population is forecast to be approximately 38,313 persons.[38] Therefore, the 2030 locally-appropriate, Plan-specific threshold would be 2.10 MT of CO_2e per resident per year (see **Table 3.7-3, Locally Applicable Project-Specific 2030 Efficiency Threshold**).

Table 3.7-3
Locally Applicable Project-Specific 2030 Efficiency Threshold

Target Year	Value
2010 Baseline Levels[1]	157,803 MT of CO_2e/year
2020 Target (AB 32)[2]	134,133 MT of CO_2e/year
2030 Target (SB 32)[3]	80,480 MT of CO_2e/year
2030 Residential Population[4]	38,313 persons
2030 Project-Specific Efficiency Threshold	**2.10 MT of CO_2e per resident per year**

Notes:

MT = metric tons; CO_2e = carbon dioxide equivalents

[1] 2010 emission levels from project-applicable sectors (see Table 3.7-2)

[2] AB 32 sets a target of reducing GHG emissions to 1990 levels (i.e., 15 percent below 2010 levels) by 2020.

[3] SB 32 sets a target of reducing GHG emissions 40 percent below 1990 levels by 2030.

[4] The 2030 residential population was calculated using linear interpolation of the City's current (2021) population of 35,981 persons and the Southern California Association of Governments' forecast population of 42,200 persons for year 2045 (California Department of Finance 2021; Southern California Association of Governments 2021).

Source: City of Moorpark, and Rincon Consultants, Inc., August 2021.

The target identified by remaining on the trajectory to meet Executive Order B-55-18, adjusted to be specific for the Plan, is appropriate for Moorpark to use as the basis for determining an applicable significance threshold for the Plan. Based on the above, the Plan must meet the target of net GHG emissions of approximately 2.10 MT of CO_2e per resident population per year at full buildout in the year 2030. Emissions greater than 2.10 MT of CO_2e per resident population per year would conflict with substantial progress toward the long-term reduction targets identified by SB 32 and Executive Order B-55-18, and the project's cumulative contribution of long-term emissions would be considered significant.

[38] The 2030 residential population was calculated using linear interpolation of the City's current (2021) population of 35,981 persons and the Southern California Association of Governments' forecast population of 42,200 persons for year 2045 (California Department of Finance 2021; Southern California Association of Governments 2021).

3.7.4 ENVIRONMENTAL IMPACTS

Impact GHG-1 **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.**

Less Than Significant

Construction Emissions

The Proposed Project would generate GHG emissions during temporary, short-term construction activities such as demolition, site preparation and grading, running of construction equipment engines, movement of on-site heavy-duty construction vehicles, hauling of materials to and from the site, asphalt paving, and construction worker motor vehicle trips.

The construction activities required to facilitate buildout of the Proposed Project would include the use of heavy-duty construction equipment. The vast majority of construction equipment (*e.g.*, backhoes, cranes, rubber-tired loaders, scrapers, and haul trucks) relies on fossil fuels, primarily diesel, as an energy source. The combustion of fossil fuels in construction equipment results in GHG emissions of CO_2 and much smaller amounts of CH_4 and N_2O. Emissions of GHG would also result from the combustion of fossil fuels from haul trucks and vendor trucks delivering materials, and construction worker vehicles commuting, to and from the Project site. Typically, light-duty and medium-duty automobiles and trucks would be used for worker trips and heavy-duty trucks would be used for vendor trips. The vast majority of motor vehicles used for worker trips rely on gasoline as an energy source while motor vehicles used for vendor trips relies on diesel as an energy source. The combustion of gasoline in motor vehicles results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. The combustion of diesel in heavy-duty trucks results in GHG emissions of CO_2 and much smaller amounts of CH_4 and N_2O.

Construction GHG emissions would be short-term – that is, the emissions would occur only during active construction and would cease after the Proposed Project has been built out. The other primary GHGs (hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) are typically associated with specific industrial sources and are not expected to be emitted during construction.

The construction-related emissions of GHG associated with construction equipment and activities were estimated using the CalEEMod model (the calculations are included in **Appendix 3.7-A** of this Draft EIR). Construction activity was modeled based on the construction schedule, equipment types, and activity levels described in **Section 3.2, Air Quality**.

As shown in **Table 3.7-4, Proposed Project Estimated Construction Greenhouse Gas Emissions**, the total GHG construction emissions over the approximately five-year construction duration of the Proposed Project would be approximately 3,277 MT CO_2e. As GHG emissions impact from construction activities would occur over a relatively short time span, it would contribute a relatively small portion of the lifetime of GHG emission impact of the Proposed Project. The total construction GHG emissions were divided by 30 to determine an annual construction emission rate estimate to be amortized over the project's first 30 years of operational life, consistent with SCAQMD's guidance.[39]

As presented in **Table 3.7-4, Proposed Project Estimated Construction Greenhouse Gas Emissions,** amortized over a 30-year period, consistent with CEQA analysis across the state, the Proposed Project is anticipated to emit approximately 109 MT CO_2e/year.

Table 3.7-4
Proposed Project Estimated Construction Greenhouse Gas Emissions

Construction Year	Emissions in Metric Tons CO_2e Per Year
2022	431
2023	643
2024	1,337
2025	465
2026	452
2027	149
Total Construction Emissions	3,277
30-Year Amortized Construction Emissions	109

Source: Rincon Consultants, Inc., December 2021.

Operational Emissions

Operational emissions are those that occur over the life of the Proposed Project. CalEEMod was also used to calculate the annual GHG emissions generated by the project during operation, including emissions from direct sources such as area and mobile sources and indirect source including electricity, waste, and water sources.

39 SCAQMD Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf, accessed November 20, 2019.

Area source emissions are based on the land use sizes, GHG emission factors for fuel combustion, and the global warming potential (GWP) values for the GHGs emitted. Electricity usage emissions are based on the land uses, default demand factors for the land use, GHG emission factors for the utility provider, and the GWP values of the GHGs emitted. Mobile-source GHG emissions are determined based on the Project's estimated annual VMT, which is based on the VMT analysis included in **Section 3.15, Transportation**. Waste and water emissions are derived from the anticipated water usage and wastewater generated based on the Project's proposed land uses and the associated water demand factors.

The GHG emissions associated with operation of the proposed Hitch Ranch project are presented below in **Table 3.7-5, Proposed Project Estimated Total Greenhouse Gas Emissions.** As shown in **Table 3.7-5**, the Hitch Ranch Specific Plan would emit approximately 5,067 MT CO_2e per year, or approximately 2.03 MT CO_2e per capita per year.

Table 3.7-5

Proposed Project Estimated Total Greenhouse Gas Emissions

Emissions Source	Emissions in Metric Tons CO_2e Per Year
Construction (Amortized)	109
Area	9
Energy	812
Mobile	3,569
Waste	346
Water	222
Total Operational GHG Emissions	**5,067**
Residential Population (persons)[1]	**2,492**
Per Capita GHG Emissions (MT CO_2e per year)	**2.03**
Locally-Applicable, Project-Specific Threshold (MT CO_2e per year)[2]	**2.10**
Threshold Exceeded?	**No**

[1] *See **Section 3.11, Population and Housing**.*
[2] For a discussion of how the threshold was determined, refer to Section 3.7.3.3, *CEQA Thresholds of Significance*.
Source: Rincon Consultants, Inc., December 2021.

As shown in **Table 3.7-5**, the Plan would achieve GHG reductions to reach less-than-significant levels (represented by equal to or less than 2.10 per capita $MTCO_2e$ per resident per year by 2030). The Plan would result in 2.03 per capita $MTCO_2e$ per resident per year through 2030. The Plan's conformance

within this threshold is primarily due to the Plan's requirement to comply with the 2019 Building Energy Efficiency Standards and 2019 CALGreen, requiring 100 percent of electricity usage for the proposed residential uses to be supplied by solar PV panels, a 20 percent reduction in indoor water use, and the use of water-efficient irrigation systems. As such, the Plan would also be in line with the state's 2030 and 2045 targets per SB 32 and EO B-55-8 respectively. Therefore, operational and total (construction plus operational) GHG emissions from buildout of the Plan would be less than significant, and no mitigation is required.

Impact GHG-2 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gas emissions.

Less Than Significant

Pursuant to Appendix G of the *CEQA Guidelines*, a significant GHG impact is identified if the project could conflict with applicable GHG reduction plans, policies, or regulations. Development projects would be subject to complying with SB 32, and the SCAG 2020 RTP/Sustainable Communities Strategy. SB 32 is a statewide reduction goal aimed at reducing emissions to 40 percent below 1990 levels by 2030. The CARB 2017 Scoping Plan Update sets a framework for the state to meet the reduction targets of SB 32. As discussed under Impact GHG-1, the Plan would be consistent with the state 2030 and 2045 GHG emissions targets per SB 32 and EO B-55-8, respectively.

Consistency with the CARB 2017 Scoping Plan Update

CARB issued the 2017 Scoping Plan Update in November 2017 that established GHG emissions reduction strategies necessary to meet the SB 32 2030 reduction goals.[40] **Table 3.7-6, Plan Consistency with CARB 2017 Scoping Plan Update GHG Emission Reduction Strategies** identifies the Scoping Plan policies that are applicable to the Proposed Project. As shown, Hitch Ranch project would be consistent with the Scoping Plan.

Table 3.7-6
Plan Consistency with CARB 2017 Scoping Plan Update GHG Emission Reduction Strategies

Measures	Project Consistency
Implement SB 350 by 2030:	Not Applicable. The measure is not related to development projects but intended for energy providers.
Increase the Renewables Portfolio Standard to 50 percent of retail sales by 2030 and grid reliability	

40 CARB. *California's 2017 Climate Change Scoping Plan*. Available online at: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed February 20, 2020.

Measures	Project Consistency
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.	Not Applicable. This measure is directed towards policymakers, not development projects. However, the Plan is designed to meet CALGreen building standards by including measures designed to reduce energy consumption.
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in the IRPs to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly-owned utilities meet GHG emissions planning targets through a combination of measures as described in IRPs.	Consistent. The Plan is designed to meet CALGreen building standards by including measures designed to reduce energy consumption.
Implement Mobile Source Strategy (Cleaner Technology and Fuels):	Consistent. The Plan would construct residential homes within a mile of the Moorpark Amtrak and the Moorpark Metrolink stations. Thus, this would reduce VMT traveled, promote alternatives to driving, and aim to reduce GHG emissions.
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."	
By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road use, parking pricing, transit discounts).	Not Applicable. This measure is directed towards policymakers, not development projects. However, the Plan is located within one mile of the Moorpark Amtrak and Metrolink stations which would lead to a reduction in VMT.
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	Not Applicable. This measure is directed towards CARB, CalRecycle, CDFA, SWRCB, and local air districts. However, the statewide policy goals of 75 percent of solid waste generated be source reduce, recycled, or composted by 2020 under AB 341. Since the Plan would be operational after this year, the Plan's waste collection service would be required to be compliant with this waste reduction.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	Consistent. The Plan incorporates design features that would reduce GHG emissions from Plan-related energy, indoor water, and outdoor water use. Additionally, due to Plan area proximity to the Moorpark Metrolink and Amtrak stations, the Plan would reduce VMT and associated transportation emissions.

Source: Impact Sciences, 2020.
CARB. California's 2017 Climate Change Scoping Plan. Available online at: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, *accessed February 20, 2020.*

Based on this evaluation, this analysis finds that the Plan would be consistent with all feasible and applicable strategies recommended in the CARB 2017 Scoping Plan Update.

Consistency with SCAG Connect SoCal 2020-2045 RTP/SCS

At the regional level, the Connect SoCal Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) represent the region's Climate Action Plan that defines strategies for reducing GHGs. To assess the proposed Plan's potential to conflict with the RTP/SCS, this section analyzes the proposed Plan's land use profile for consistency with those in the RTP/SCS. Generally, proposed projects and plans are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals.[41]

Table 3.7-7, Proposed Plan Consistency with SCAG Connect SoCal GHG Emission Reduction Actions and Strategies, demonstrates the proposed Plan's consistency with the strategies set forth in the Connect SoCal Plan. The proposed Plan would also be consistent with the applicable strategies set forth in Connect SoCal's "A Path to Greater Access, Mobility, & Sustainability" chapter. Therefore, the proposed Plan would be consistent with the GHG emission reduction related actions and strategies contained in Connect SoCal.

Table 3.7-7
Plan Consistency with SCAG Connect SoCal Plan
GHG Emission Reduction Actions and Strategies

Actions and Strategies	Consistency Analysis
Focus Growth Near Destinations & Mobility Options	
Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations	**Consistent:** The proposed Plan would construct 755 residential units proximate to the Moorpark Amtrak and Metrolink stations which would lead to a reduction in VMT. The proposed Plan would include pedestrian, bicycle and equestrian trails that connect to the local and regional trail systems in the surrounding hills.
Focus on job/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets	**Consistent:** The proposed Plan would construct 755 new housing units proximate to the Moorpark Amtrak and Metrolink stations, and in close proximity to the Moorpark High Street business district.
Plan for growth near transit investments and support implementation of first/last mile strategies	**Consistent:** The proposed Plan would construct 755 new housing units proximate to the Moorpark Amtrak and Metrolink stations, and in close proximity to the Moorpark High Street business district.
Focus Growth Near Destinations & Mobility Options	

41 Southern California Association of Governments. 2020. *Connect SoCal*. Available online at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176.

Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses	**Not Applicable:** The proposed Plan is currently undeveloped, so there is no opportunity for redevelopment.
Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods	**Consistent:** The proposed Plan would develop an undeveloped site, surrounded by other residential, institutional, and commercial development. The proposed Plan includes circulation upgrades that would benefit the surrounding residential communities, schools, and businesses.
Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations)	**Consistent:** The proposed Plan would construct 755 new housing units proximate to the Moorpark Amtrak and Metrolink stations, and in close proximity to the Moorpark High Street business district.
Promote Diverse Housing Choices	
Preserve and rehabilitate affordable housing and prevent displacement	**Consistent:** The proposed Plan would develop an undeveloped site and would not displace any affordable housing units. Instead, the proposed Plan would construct housing on the Proposed Project site, including 135 affordable residential units.
Identify opportunities for new workforce and affordable housing development	**Consistent:** The proposed Plan would develop 755 new housing units, in a range of housing opportunities with varying densities, types, styles, prices, and tenancy characteristics (for sale versus rental), including 135 affordable residential units.
Leverage Technology Innovations	
Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedications lanes, charging and parking/drop-off space	**Not Applicable:** This strategy is aimed at local government to promote shared bikes and scooters, electric vehicles, ride sharing and provide safe infrastructure such dedicated lanes, charging and parking/ drop-off space. The Proposed Project would not interfere with such policymaking.
Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation	**Not Applicable:** This strategy is aimed at local government to identify ways to incorporate "micro-power grids." The Proposed Project would not interfere with such policymaking.
Support Implementation of Sustainability Policies	
Pursue funding opportunities to support local sustainable development implementation projects that reduce GHG emissions	**Not Applicable:** While this strategy calls on local governments to adopt policies for sustainable infrastructure and development projects, the Proposed Project would not interfere with such policymaking.
Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations	**Not Applicable:** While this strategy calls on the state to adopt policies to new construction near transit corridors and stations, the Proposed Project would not interfere with such policymaking and would construct a residential development in proximity to a major transit station.
Support cities in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects	**Not Applicable:** While this strategy calls on cities to establish tax incentive or other value capture tools to finance sustainable infrastructure, the Proposed Project would not interfere with such policymaking.
Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies	**Not Applicable:** While this strategy calls on SCAG to work with local jurisdictions to identify ways to implement sustainable strategies, the Proposed Project would not interfere with such policymaking.
Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region	**Not Applicable:** While this strategy calls on planning organizations to promote resources and best practices in SCAG, the Proposed Project would not interfere with such policymaking.

Continue to support long range planning efforts by local jurisdictions	**Not Applicable:** While this strategy calls on local jurisdictions to support long range planning, the Proposed Project would not interfere with such policymaking.
Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy	**Not Applicable:** While this strategy calls on local jurisdictions to provide educational opportunities on new tools and practices to promote the Sustainable Communities Strategy, the Proposed Project would not interfere with such policymaking.
Promote a Green Region	
Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards.	**Not Applicable:** While this strategy calls on local jurisdictions to support the development of local climate adaptation and hazard mitigation plans, the Proposed Project would not interfere with this goal.
Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration	**Not Applicable:** While this strategy calls on local governments to adopt policies for renewable energy production, the Proposed Project would not interfere with such policymaking.
Integrate local food production into the regional landscape	**Not Applicable:** While this strategy calls on local governments to integrate local food into the regional landscape, the Proposed Project would not interfere with such policymaking.
Promote more resource efficient development focused on conservation, recycling, and reclamation	**Consistent.** The proposed Plan would be required to adhere to the latest CALGreen Building Codes and Title 24, which would result in a more efficient Proposed Project site. Moreover, the Proposed Project site is proximate to a major transit station that would promote public transit and reduce vehicle trips to the site. The proposed Plan would focus on water and energy efficiency in design by constructing the site with a drought tolerant landscape, LED lighting, and ENERGY STAR appliances.
Preserve, enhance and restore regional wildlife connectivity	**Consistent:** The proposed Plan would be constructed on undeveloped land within the Moorpark community. As discussed in Section 3.3, Biological Resources, the Project site is almost entirely surrounded by various densities of development and is not expected to be used as a movement corridor by wildlife. However, the proposed Plan would maintain approximately 55 acres of natural open space and would restore native habitat removed by the project, which would benefit local wildlife.
Reduce consumption of resource areas, including agricultural land	**Consistent**. The proposed Plan would be located on undeveloped land. The loss of agriculture resources related to the Proposed Project is limited to Farmland of Local Importance and grazing lands, and does not include Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the loss of these resources is not considered a significant impact. Please refer to section 3.10, Land use for further discussion.
Identify ways to improve access to public park space	**Not Applicable.** While this strategy calls on local governments to improve access to public park space, the Proposed Project would not interfere with this goal. Further, the Proposed Project would provide two new public parks along the southern edge of the Project site.

Source: Impact Sciences, 2021.
SCAG. 2020. Connect SoCal – The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, Chapter 3: A Path to Greater Access, Mobility, & Sustainability. Available online at: https://www.connectsocal.org/Documents/Draft/dConnectSoCal-03_Draft-Plan.pdf, *accessed October 19, 2020.*

As described above, the proposed Plan would implement a series of project design features, including installing ENERGY STAR appliances and LED lighting, that would reduce GHG emissions. As a result, the proposed Plan is consistent with the CARB 2017 Scoping Plan Update and SCAG Connect SoCal 2020 RTP/SCS. Furthermore, the proposed Plan would be developed consistent with California Code of Regulations Title 24 (both the 2019 CALGreen Building Code and the 2019 California Building Energy Efficiency Standards); this would reduce on-site operational GHG emissions from area and energy sources. For these reasons, the proposed Plan would not conflict with an applicable plan, policy, or regulations adopted for the purpose of reducing the emissions of greenhouse gas emissions. Impacts would be less than significant.

3.7.5 CUMULATIVE IMPACTS

The analysis of a project or plan's GHG emissions is inherently a cumulative impacts analysis, because climate change is a global problem. Accordingly, the analysis above took into account the potential for the Plan to contribute to the significant cumulative impact of global climate change. The analysis above illustrates that implementation of the Plan's design features in conjunction with state GHG reduction-related mandates would be in compliance with state goals for GHG emissions reduction and not significantly contribute to the global climate change problem.

The analysis also shows that the Plan is consistent with the CARB Climate Change Scoping Plan Update, particularly its emphasis on the identification of GHG emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. In addition, the Plan is consistent with the Connect SoCal 2020 RTP/SCS' regulatory requirements to reduce regional GHG emissions from the land use and transportation sectors by 2040. For these reasons, the Plan's contribution to the cumulative global climate change impact is less than significant.

3.7.6 MITIGATION PROGRAM

3.7.6.1 Project Design Features

The proposed Plan would implement the following project design features to help reduce GHG emissions:

- Install high-efficiency irrigation systems.
- Install low flow water-efficient faucets, toilets, and showers.
- Install on-site photovoltaic (PV) panels capable of providing 100 percent of the on-site electricity demand for all residential buildings of three stories or less.

- Install an approximately 212-kilowatt rooftop solar PV system on each four-story residential building
- Install ENERGY STAR appliances.
- Install high-efficacy lighting and design lighting system.

3.7.6.2 Mitigation Measures

Impacts would be less than significant – no mitigation is required.

3.7.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant without mitigation.

3.8 HAZARDS AND HAZARDOUS MATERIALS

INTRODUCTION

This section presents an overview of the existing conditions with regard to the presence of hazards and/or hazardous materials within the boundaries of the proposed Hitch Ranch Specific Plan site. It also discusses the potential impacts resulting from hazards or hazardous materials as a result of construction and operation activities associated with the proposed specific plan.

3.8.1 LITERATURE AND DATA REVIEW

Project-Related Studies

A series of Environmental Site Assessments (ESAs) were completed for the Proposed Project Site:

- *Phase I Environmental Site Assessment, Hitch Ranch Project Property, Poindexter Avenue at Gabbert Road, Moorpark, California*, dated December 13, 2017, prepared by Amicus – Strategic Environmental Consulting (Amicus).

- *Phase I Environmental Site Assessment (ESA), Hitch Ranch, Moorpark Specific Plan No. 2, Moorpark, California*, dated February 13, 1998, prepared by Gradient Engineers, Inc.;

- *Addendum to the Phase I Environmental Site Assessment, Hitch Ranch, Moorpark Specific Plan No. 1, Moorpark, California*, dated February 14, 2000, prepared by Gradient Engineers, Inc. (GE);

- P*hase I Environmental Site Assessment Update and Limited Phase II Soil Screening for Organochlorine Pesticides, Hitch Ranch, Moorpark Specific Plan No. 1, Moorpark, California, 93021*, dated October 16, 2006, prepared by Applied Environmental Technologies, Inc. (AET);

- *A Geologic Mapping Approach to Identify Radon Hot-Spots in California and Ramifications for The State's Radon Risk Picture*. Ronald Churchill, Ph.D., Senior Engineering Geologist, California Geological Survey, Sacramento, California, July 2016;

- *Evaluation of Potential Indoor Radon Gas Exposure, Proposed Residential Development, Tentative Tract 5708 (Hitch Ranch Project), City of Moorpark, California*, Albus & Associates, Inc., October 19, 2021.

Each of the reports identified above is incorporated by reference, and included in **Appendix 3.8** to this EIR.

3.8.2 REGULATORY FRAMEWORK

3.8.2.1 Federal Regulations

The US Environmental Protection Agency (US EPA) is the main federal agency responsible for enforcing regulations relating to hazardous materials and wastes, including evaluation and remediation of contamination and hazardous wastes. The US EPA works collaboratively with other agencies to enforce materials handling and storage regulations and site cleanup requirements. The Occupational Safety and Health Administration (OSHA) and the Department of Transportation (DOT) are authorized to regulate safe transport of hazardous materials.

Resource Conservation and Recovery Act (RCRA)

RCRA is the public law that creates the framework for the proper management of hazardous and non-hazardous solid waste. The law describes the waste management program mandated by Congress that gave EPA authority to develop the RCRA program. The term RCRA is often used interchangeably to refer to the law, regulations, and EPA policy and guidance.

3.8.2.2 State Regulations

Department of Toxic Substances Control

The State Department of Toxic Substances Control (DTSC) is authorized by CAL EPA to administer the hazardous waste laws and oversee remediation of hazardous wastes sites. Regulations require that DTSC "shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all the following: (1) [a]ll hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code (HSC)."[1]

The hazardous waste facilities identified in HSC Section 25187.5 are those where DTSC has taken or contracted for corrective action because a facility owner/operator has failed to comply with a date for taking corrective action in an order issued under the HSC, or because DTSC determined that immediate corrective action was necessary to abate an imminent or substantial endangerment.[2]

1 California Government Code, Title 22, Section 65962.5.

2 California Health and Safety Code, Section 25187.5.

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources

The California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) is mandated by Section 3106 of the Public Resources Code to supervise the drilling, operation, maintenance, and abandonment of oil and gas wells for the purpose of preventing (1) damage to life, health, property, and natural resources; (2) damage to underground and surface waters suitable for irrigation or domestic use; (3) loss of oil, gas, or reservoir energy; and (4) damage to oil and gas deposits by infiltrating water and other causes. The regulations can be found in the California Code of Regulations (CCR) Title 14. DOGGR's Well Review Program assists developers in addressing issues associated with development near oil and gas wells.[3]

3.8.2.3 Local Regulations

Ventura County Air Pollution Control District

The Ventura County Air Pollution Control District (VCAPCD) is the local authority for hazardous emissions, including asbestos. The US EPA established the National Emission Standards for Hazardous Air Pollutants[4] (NESHAP) for asbestos in order to minimize the release of fibers during activities involving asbestos handling. VCAPCD regulates asbestos demolition and renovation operations using Rule 62.7 instead of the NESHAP.[5]

VCAPCD Rule 62.7 applies to all renovation and demolition operations, including those not previously regulated under NESHAP. The rule applies to operations at dwelling units and operations involving 100 or more square feet of ACM. Under Rule 62.7, written notification must be postmarked or delivered to VCAPCD at least 10 working days before work that may disturb ACM begins.

Ventura County Environmental Health Division

The Ventura County Hazardous Materials Program, administered by the County Environmental Health Division, is the Certified Unified Program Agency (CUPA) for the County. The CUPA provides regulatory oversight for the following programs: Hazardous Waste Generator, Hazardous Waste Generator On-Site Treatment (Tiered Permit), Underground Storage Tank, Aboveground Storage Tank

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3 California Division of Oil, Gas, and Geothermal Resources, *Well Review Program Introduction and Application*, 2007 ftp://ftp.consrv.ca.gov/pub/oil/Well_Review_Program.pdf.

4 US Code of Federal Regulations, Title 40, Part 61, "National Emission Standards for Hazardous Air Pollutants."

5 Ventura County Air Pollution Control District, "Asbestos," http://www.vcapcd.org/asbestos.htm, accessed September 18, 2019.

Spill Prevention Control and Countermeasure Plan, Hazardous Materials Release Response Plans and Inventory (Business Plan), and Risk Management Plan.

In addition to conducting annual facility inspections, the Hazardous Materials Program is involved with hazardous materials emergency response, investigation of the illegal disposal of hazardous waste, public complaints, and stormwater illicit discharge inspections.

Ventura County Fire Protection District

The Proposed Project would be subject to requirements of the Ventura County Fire Protection District (VCFPD), which sets standards for water supplies, access, and fire protection equipment. Fire Prevention Standards 14.6. sets access road standards and includes requirements for secondary access.[6]

City of Moorpark

The following goals and policies of the *City of Moorpark General Plan* Safety Element related to hazardous materials are applicable to the proposed Hitch Ranch Specific Plan project.

Goal 4: Protect residents and business employees from potential hazards associated with the use, storage, manufacture, and transportation of hazardous materials in and through the City.

Policy 4.1: Continue to participate in the Standardized Emergency Management System and the Ventura County Stormwater Program [local enforcer of the National Pollutant Discharge Elimination System (NPDES) program.]

The following goals and policies of the *City of Moorpark General Plan* Safety Element related to public health and safety are applicable to the proposed Hitch Ranch Specific Plan project.

Goal 6: Reduce the risk to the community from hazards related to wildfires and structural fires.

Policy 6.1: Continue to implement the fire hazard reduction goals and policies set forth in the *Ventura County General Plan*.

Policy 6.3: Continue to require noncombustible roofing materials for new and replacement roofing.

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6 Ventura County Fire Department, "Standards and Guidelines" 2016, https://vcfd.org/FP-Standards-Guidelines, accessed September 18, 2019.

3.8.3 EXISTING CONDITIONS

Summary of Previous Phase I ESA. Past uses of various portions of the site have included an apricot orchard (1930s to 1948); hog farming (1930s to 1960s); lemon orchard (1948 to 1970s); wheat farming; dairy cow grazing; and horse training. Structures identified on the site in 1998 included a single-family residence at 537 Poindexter Avenue (in the southeastern portion of the site); a workshop, three wooden structures, an animal staging area and corral, and footings and concrete slabs in the central portion of the site (reportedly used for apricot pitting and drying operations, an office, and hog pens); a large, round, aboveground steel water tank in the northeast portion of the site; and three water wells. Except for the occupied residence, the site was reported to have been fallow since the early 1980s. No underground storage tanks (USTs) were observed on the site, and none were identified as having been historically located on the site.

The 1998 Phase I ESA identified 11 areas of potential concern (APCs) at the site: (1) suspected asbestos-containing building material in site buildings; (2) empty containers located in and around structures on the site; (3) empty paint cans, a car battery, and other debris located in a wash east of Gabbert Road; (4) landscape debris dumped in a small valley west of Gabbert Road; (5 and 6) orchard heaters (smudge pots) in the southern portion of the site, some with bullet holes; (7) former above ground oil tanks located along the southern boundary west of Gabbert Road (identified as such on a 1951 topographic map and observed in 1938 and 1952 aerial photographs); (8) two locations with abandoned vehicles; (9) an aboveground, 500-gallon diesel tank located near the end of Casey Road at the east boundary of the site with the following notation: "It is not evident if this tank is on the subject property"; (10) abandoned agricultural equipment on the site; and (11) a reported septic system in the central part of the site.

The addendum report (February 2000) addressed the location and status of active and leaking USTs located off site but within the site vicinity; the status of an adjacent property north and northeast of the site with an unpermitted solid waste disposal area (identified as The Walnut Canyon Tract Landfill); and the status of the on-site water wells. GE reviewed agency reports including those submitted to the California Department of Toxic Substances Control (DTSC) for the clean-up of the Walnut Canyon Landfill; reviewed UST and Leaking UST lists at Ventura County Environmental Health Division (VCEHD); and reviewed water well information for 15 potential water wells on the site at the Ventura County Water Resources Department (VCWRD). The addendum report concluded that the off-site active USTs, leaking USTs, and the Walnut Canyon Tract Landfill did not pose an "environmental concern at this site." A list of the 15 potential on-site water wells was provided with 9 of the wells having a depth of casing; 3 of the 9 were listed as abandoned.

Federal and State Database Review. A government database report, prepared by Environmental Data Resources (EDR) of available federal, state, and County agency databases was reviewed to identify government-regulated properties having known recognized environmental conditions and potential environmental concerns within the vicinity of the site. Because of the size of the site, the radii of investigation for the federal and state agency lists were extended up to two miles. A description of the reviewed government databases is available in the EDR report. Also included in the EDR report are maps illustrating the location of listed properties relative to the location of the site.

A summary of properties that could not be mapped by EDR, but were identified as potentially within the site vicinity (orphan properties), is also included in the EDR reports. Of the listed unmappable properties, none are identifiable as being located adjacent to the site. The pertinent findings of the government database review are summarized below:

- The site is not identified in the EDR report.
- The site is not located within 1.0 mile of a federal Superfund property.
- There are three properties located cross or up gradient of the site listed in the database report. Michael Harris at 6086 Gabbert Road (west of the Site) is listed on the UST List as having an inactive underground storage tank and on the HAZNET List as a generator of hazardous waste (used oil). Two properties, located at 11905 and 11855 Darlene Lane (northwest of the site) are listed on the RCRA Small Quantity Generator List as generators of hazardous wastes with no violations found. Having a registered UST or being a registered generator of hazardous waste does not indicate that a release has occurred on the property.
- A listing on the Emergency Response Notification System (ERNS) List was identified as 6061 Gabbert, near the west part of the site. No additional information is provided; however, releases of fuel at an accident or spills on a roadway are typically identified on the list when an emergency response agency (police or fire department) reports the incident and provides for the cleanup.
- There are 17 properties located south and down gradient of the site listed on the RCRA Small Quantity Generator List, and 30 properties located south and down gradient of the site listed on the HAZNET List as generators of small quantities of hazardous wastes. Being a registered generator of hazardous waste does not indicate that a release has occurred on the property.
- There are nine properties located down gradient of the site listed on the Leaking Underground Storage Tank (LUST) List that are also listed on the Cortese List. Seven of the properties have received a case closure from the regulatory agency. According to the State GeoTracker database, the

eighth property received a case closure from the regulatory agency in August 2005, and ninth property received a case closure from the regulatory agency in June 2010. Based on the status of the nine properties (case closed) and the distance and down-gradient location of the one active property that is undergoing remediation, there is low probability that the listed properties have impacted the site.

Based on the database review, there is a low probability that the listed off-site properties in the site vicinity have impacted the site due to their regulatory status (case closed, waste generators), their down-gradient locations from the site, and their distances from the site.

Oil and Gas Development. *The Munger Map Book of California-Alaska Oil and Gas Fields*, 2003 Edition, was reviewed to assess the presence of known active or abandoned oil and gas wells within the site vicinity. Based on the review, there are no active or abandoned oil wells on the site. The Project site is located about 2,000 feet south of Penta Well 60-4580 and Chevron Gabbert 22-4889. Both wells are abandoned and are dry holes. The nearest productive oil wells are in the very small Moorpark and Moorpark West oil fields located approximately 1 mile northwest and northeast of the site. Most, if not all, of the wells have been abandoned. The site has not been impacted by oil and gas production.

Ventura County Water Resources Department (VCWRD). The VCWRD was contacted for information concerning the reported water wells located on the site. VCWRD provided a listing of wells identified by State Well Numbers and several aerial photographs showing the approximately location of the 16 water wells suspected of being on the site. Six of the 16 wells are listed as Destroyed (meaning properly removed and plugged), two wells are listed as Non-Compliant Abandoned (abandoned in this case means the well is not in use but is not yet destroyed), one well is listed as Active, and seven wells are listed as Can't Locate Indeterminable. According to VCWRD, their records indicate that some wells permitted on the site were drilled but were not cased (possibly because they were dry or low yielding). Therefore, there is no well on site that requires destruction. Most, if not all, of the indeterminable wells may have been uncased core holes.

During a site visit, three wells were located: Well 5K1 (non-compliant) was observed with a pump located north of Poindexter Avenue on the flat land southeast of the former residence; Well 5K2 (non-compliant) was observed on a concrete pad without a pump in bushes on the east side of the entrance road approximately 50 feet south of the gate; and Well 5F2 (active) was observed with a pump and electric panel at the location of Well 5F1 on the photograph. The well is located in trees approximately 200 feet east of the southeast corner of the rural residential neighborhood northwest of the site.

Aerial Photograph Review. AET reviewed copies of aerial photographs provided by EDR for the years 1938, 1945, 1959, 1964, 1970, 1977, 1989, 1994, and 2002; and historical topographic maps for the years 1903, 1944, and 1951 for historical land use identification. Two individual adjacent photographs for each year were provided to cover the area of the site. Amicus also reviewed aerial photographs provided by EDR for the years 1938, 1947, 1952, 1969, 1985, and 2002. The most recent aerial photographs provided by EDR which were made in 2010 and 2012. These photographs depict the property in a condition similar to what is observed today, with the exception of the small ranching operation that moved onto the property in 2017. Based on the review of available aerial photographs and maps, the historical development of the site and vicinity was evaluated. Findings are summarized below:

- The 1903 Camulos Topographic Map (1:125,000) shows the site to be undeveloped land. The Southern Pacific Railroad track and a road that predated Los Angeles Avenue (Highway 118) are present south of the site. Gabbert Road is not present; however, dirt roads extend north from Los Angeles Avenue on the east and west sides of the site.

- The 1938 aerial photograph (Fairchild, 1 inch = 500 feet) shows the site to be developed with agriculture. Gabbert Road is present running northward across the west portion of the site. Two small structures, young orchards, and undeveloped land are present northwest of the site along Gabbert Road. The west portion of the site appears to be fallow or grazing land. The east and south-central portions of the site have established orchards with both young and more mature trees. An area in the central portion of the site may be cultivated with hay or wheat. The main entrance to the site is on the south side in the same location as it is today. A dirt road extends north from the present Poindexter Avenue, over the railroad track and into a small valley with low hills to the east and west. Approximately 450 feet north of the entrance, the valley forms a *Y* shape (one valley goes west-northwest and one goes north-northeast). At the *Y* was a ranch building, possibly a barn approximately 50 feet long on each side. On the hill east of the entrance is a ranch house with an access road around the south and east sides of the hill. A small structure is located approximately 600 feet east of the ranch house. A second ranch house is located near the eastern boundary of the current site with an access road of the end of Casey Road. Casey Road extends west from Walnut Canyon Road. Several buildings are located east of the site and south of Casey Road; they are identified as Union High School on the 1951 topographic map.

- The 1944 Piru 15-Minute Quadrangle Topographic Map shows the site and vicinity to be little changed since the 1903 map (the on-site orchards and structures are not noted on the map).

- The 1945 aerial photograph (Fairchild, 1 inch = 400 feet) shows several changes to the site since the 1938 photograph. Trees are present in the valley east of Gabbert Road, and a small shed and four

round objects (possible aboveground storage tanks) are located approximately 160 feet west of Gabbert Road along the south boundary of the site. On a ridge in the central portion of the site are several rectangular buildings reported to be for apricot pitting and drying (GE report, 1998). The site vicinity is little changed since the 1938 photograph.

- The 1951 Moorpark 7.5-Minute Quadrangle Topographic Map shows the site orchards and structures to be present on the east and southern portions of the site, as seen in the aerial photographs. A round tank is located approximately 800 feet south of the north property boundary and 100 feet west of the east property boundary in the orchard (observed by AET and others to be a water storage tank currently on the site). The four round tanks west of Gabbert Road that were observed on the 1945 photograph are identified as oil tanks (the GE report discussed the storage of oil in the aboveground tanks for use in orchard heaters).

- The 1959 aerial photograph (Robinson, 1 inch = 555 feet) shows the site and site vicinity to be little changed since the 1945 photograph. The ranch building (barn) located in Y-valley north of the entrance road is gone. Electric transmission poles (towers) are present on the west side of the site along Gabbert Road. Five additional small structures are located northeast of the buildings on the central portion of the site (identified as hog pens in the GE report). The area of the site planted with orchards is approximately half of the original area. Several long, rectangular buildings are located northwest of the site (off site) on the north side of Gabbert Road. More development is present at the High School and along Walnut Canyon Road, east of the site.

- The 1964 aerial photograph (Mark Hurd, 1 inch=666 feet) shows the site to be little changed since the 1959 photograph. Orchards are only present in the northeast corner of the site, along the east side of Gabbert Road, and in a small area along the south boundary of the site. The area of the site west of Gabbert Road is fallow and the four above ground tanks are gone. The ranch house at the end of Casey Road is still present, but development east of the ranch house has increased.

- The 1970 aerial photograph (Mark Hurd, one inch = 333 feet) shows the site to be little changed since the 1964 photograph. The power poles on the west portion of the site have been replaced by twin-legged steel towers. A new alignment of steel towers is under construction along the southern site boundary west of Gabbert Road and a Southern California Edison Company substation is under construction south of the western portion of the site, the railroad track, and the extension of Poindexter Avenue. There are more structures (rural dwellings) on the land northwest of the site along Gabbert Road.

- The 1977 aerial photograph (Teledyne, 1 inch = 666 feet) shows the site to be little changed since the 1970 photograph. Residential neighborhoods are present south of Poindexter Avenue and in the community of Moorpark southeast of the site.

- The 1989 and 1994 aerial photographs (USGS, 1 inch= 666 feet) show little change to the site since the 1977 photograph except that all orchard areas are gone and the site appears fallow. Commercial buildings are present off site on previously vacant land south of Poindexter Avenue and east of Gabbert Road, and more rural residential development has occurred on the land northwest of the site.

- The 2002 aerial photograph (USGS, 1 inch=666 feet) shows that the ranch house located off Casey Road is gone and the school property has expanded west. The location of the old ranch house west of the end of Casey Road is now shown to be off site. The dirt roads that have existed on the site since the 1930s are still clearly visible in the photograph. The site is fallow grass/brush land with occasional single and multiple trees.

- The 2010 aerial photograph (USGS, 1 inch= 666 feet) show little change to the site since the 2002 photograph. Commercial buildings are present off site on previously vacant land south of Poindexter Avenue and east of Gabbert Road, and more rural residential development has occurred on the land northwest of the site.

- The 2012 aerial photograph (USGS, 1 inch=666 feet) shows that dirt roads that have existed on the site since the 1930s are still clearly visible in the photograph. The site is fallow grass/brush land with occasional single and multiple trees.

Based on the historic aerial photograph and topographic map review, the site has been developed with agriculture (orchards and hog farming) since the 1930s through the 1980s, and has been generally fallow since the 1980s.

Site Reconnaissance. On May 16, 2006, AET visited the site to observe conditions. An additional site visit was made on December 9, 2017 by Amicus, to confirm the findings of the AET visit. All portions of the site were observed from existing on-site dirt roads or on foot.

The property has varied topography, generally rising south to north with intervening small valleys and flats. Some slope breaks are gradual; most are fairly steep. Trees grow in places, most often in lower elevations near areas of seasonal water. Site vegetation is primarily scrub and tumbleweeds. In late 2003, a large fire burned approximately 80,000 acres of land in and around Simi Valley and Moorpark.

Evidence of a fire on the site was observed during the AET visit, as no wooden structures remained, and a number of dead trees with charred trunks and trees with new growth were observed.

AET reported the location of one of the former water wells (5K2) was observed in brush approximately 10 feet east of the entrance road and 50 feet north of a storm drain. The location of the former ranch house located on the hill just east of the entrance was accessed on foot. No structures were observed on the location. A gas meter pipe was observed on the northeast part of the hill. From the hill, a water well (5K1) with a pump was observed on the flat land below. The entire southeast portion of the site was covered with dry grasses.

Amicus reported that ungraded dirt tracks crisscross the property providing access to most areas of the site. Structural features on the Project parcels include the small stable and corral in the south-central area, the watering trough, tank and dilapidated shed in the southwestern area, and the large above-ground water tank in the northeastern area of the property. A number of water wells associated with the historic agricultural use were reported to be present by AET but not inspected during this reconnaissance. Numerous valve boxes for the historic orchard irrigation system are present in concrete enclosures distributed about the site. Foundation slabs of historic agricultural buildings were observed in the north central portion of the property. A limited amount of debris was observed near the larger slabs on the flat just northwest and above the small corral and near the Casey gate; no drums or tanks or debris that would likely affect the environmental condition of the property was observed. The corral in the central portion of the property was constructed recently and is well kept and in good condition.

No structures or signs of structural improvement were observed on the western parcel. High-tension electricity transmission lines run along the western and northern edges of the western parcel; a sub-station is located across the railroad tracks to the south.

Rural residential dwellings were observed west of the northwest corner of the site. A clump of small trees and brush were observed just east of the point where the site again extended west (south of the residential properties). A water well (identified as 5F1) was observed by AET with a pump and electric panel in the trees; the metal pump shed was on its side nearby. The area south of the residential properties to Gabbert Road had been plowed for weed control. The road along the low land east of Gabbert Road was in poor condition and ended at the service road for the concrete-lined channel at the southern site boundary. North of the service road and east of Gabbert Road was a long, flat area where orchard heaters had been previously observed (GE 1998). No orchard heaters, debris, or stained soil were observed in the area by AET or Amicus.

Several utility easements for overhead electric transmission towers and poles were observed on the westernmost portion of the site. No soil staining was observed in the area where the four former above ground tanks had been located (reported to have stored heater oil for the orchard heaters). At several locations along the dirt road, light-gray colored (charcoal) soil (the result of a fire) was observed.

At the time of the site visit, no underground storage tanks, aboveground fuel tanks, pits, ponds, stressed vegetation, significant debris, or stained soil were observed on the site. No structures were observed on the site other than an empty water tank in the northeast portion of the site, the concrete slabs, and some charred wood in the central portion of the site, and three water well locations along the southern portion of the site.

The AET report did not identify a feature use or condition that had obviously caused or could potentially cause a REC. No indication of a current or recent practice or activity that could cause a REC was observed in the property interior during the site inspection by Amicus. The boundaries of the property were inspected from the interior tracks during the reconnaissance by Amicus for signs of dumping or trespass that could cause a REC; none was observed.

Adjacent Property Reconnaissance. Adjacent properties around the site were observed by AET and Amicus for evidence of recognized environmental conditions. A few single-family homes and the Walnut Canyon Elementary School are located immediately to the east, and the Moorpark downtown area is located about 0.75 mile farther east. A mixture of institutional, residential, light industrial, and commercial land uses occurs to the south. Single-family homes at rural densities and open space are to the west. Undeveloped hills are located to the north, which are planned for residential uses in the future. A Ventura County Water Protection District concrete flood-control channel (Walnut Canyon Channel) borders the southern site boundary. The Union Pacific Railway tracks are located just south of the flood channel. A narrow strip of flat, vacant land separates the tracks from Poindexter Avenue, which is a two-lane arterial between Moorpark Avenue on the east and Gabbert Road to the west. West and northwest of the site was undeveloped land and an area of rural dwellings accessed from Gabbert Road. South of the site were a residential neighborhood (southeast) and commercial businesses (southwest) across Poindexter Avenue. A Southern California Edison substation was observed south of the westernmost portion of the site. No recognized environmental conditions were observed on the adjacent properties.

In previous correspondence, the Ventura County Environmental Health Department (VCEHD) and the Ventura County Public Works Agency (VCPWA) identified the potential for the presence of hazardous materials in the project area. These concerns included a leaking UST at 5300 Gabbert Road, a closed illegal

or abandoned solid waste disposal site that was either on or north of the specific plan area, and the on-site water wells.

Underground Storage Tank - 5300 Gabbert Road. The VCEHD, Underground Tank Closed Sites List, dated August 26, 1999, was reviewed by GE for the address 5300 Gabbert Road. The listing is included in **Appendix 3.8-D** of this EIR. This site (Ventura ID# D1292), identified as Prudential Overall Supply, is considered by the VCEHD to be inactive and on the closed-site list with no further action required.

Walnut Canyon Tract Landfill. On January 25, 1990, Harding Lawson Associates (HLA) prepared the Site Characterization and Remedial Action Plan, Walnut Canyon Tract, Moorpark, California, to evaluate the types, character, and extent of waste materials within the Walnut Canyon Tract Landfill. This landfill site is located about 2,000 feet north of the specific plan site.

HLA characterized the site by trenching in the area of the landfill. The landfill was identified as an unauthorized dumping area, which contained an estimated 1,200 to 2,000 cubic yards of debris. Materials identified in the landfill included landscape and demolition debris such as lumber, plasterboard, piping, concrete and asphalt, automotive parts, tires, and household-type rubbish. A limited amount of asbestos-containing materials (25 to 50 pounds) was also detected in transite piping. In addition to materials contained with the landfill, HLA identified hydrocarbon soil contamination caused by the landfill site's use as a vehicle maintenance area.

Upon the characterization of the landfill, HLA submitted a remediation action plan (RAP) to the VCEHD. The VCEHD indicated that they did not have regulatory authority for cleanup or for contaminated soil sites, and referred the case to the California Department of Health Services (DHS). DHS subsequently approved the RAP, and waste removal from the landfill site occurred between October and December 1990. After materials were removed, HLA conducted a preliminary endangerment assessment (PEA) and submitted the PEA to the Department of Toxic Substances Control (DTSC). The DTSC concluded, "the site shows no evidence of contamination that may pose a threat to human health and the environment. Therefore, the Department concurs with your recommendation that No Further Action is appropriate at the subject site."[7]

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7 *Addendum to the Phase I Environmental Site Assessment, Hitch Ranch, Moorpark Specific Plan No. 1, Moorpark, California*, dated February 14, 2000, prepared by Gradient Engineers, Inc. Section 2.0, included as Appendix 3.8-C to this DEIR.

3.8.3.1 Limited Phase II Soils Assessment

In order to confirm or deny significant impacts to the shallow soil from the potential use of organochlorine pesticides in the former orchards, AET established an approximate grid pattern with 15 locations in the east and south portions of the site where most of the orchards observed on the aerial photographs had been located.

Five pesticide compounds were detected: Dichlorodiphenyltrichloroethane (DDT), its two daughter products Dichlorodiphenyldichloroethylene (DDE) and Dichlorodiphenyldichloroethane (DDD), Alpha Chlordane, and Gamma Chlordane. The laboratory results are summarized below.

- Alpha and Gamma Chlordane were detected only in Sample HA-1 at 0.073 milligrams per kilogram per kilogram (mg/kg), and 0.53 mg/kg, respectively.

- DDT was detected in 14 of the 15 samples ranging from 1.7 mg/kg in Sample HA-15 to 0.01 mg/kg in Samples HA-5 and HA-11. The second highest concentration was 0.111 in Sample HA-2. DDT was not detected in Sample HA-3. The average concentration (using the reporting limit of 0.004 for the ND sample) is 0.141 mg/kg. Eliminating Sample HA-15 (1.7 mg/kg), the remaining 14 samples had an average DDT concentration of 0.03 mg/kg.

- DDE was detected in all 15 samples ranging from 4.96 mg/kg in Sample HA-15 to 0.005 mg/kg in Sample HA-3. The second highest concentration was 0.497 mg/kg in Sample HA-14. The average concentration is 0.41 mg/kg. Eliminating Sample HA-15 (4.96 mg/kg), the remaining 14 samples had an average DDE concentration of 0.084 mg/kg.

- DDD was only detected in Sample HA-9 at 0.045 mg/kg.

- Soil screening levels were reviewed for the detected compounds from two sources: the United States Environmental Protection Agency (US EPA) 2004 Preliminary Remediation Goals (PRGs) for evaluating and cleaning up contaminated sites, and the California Regional Water Quality Control Board (RWQCB) San Francisco Region 2005 Interim Final Environmental Screening Levels (ESLs) for environmental concerns at sites with contaminated soil and groundwater. The following results were found:

- All detected values for Chlordane, DDT, DDE, and DDD at the site are at or below the PRG values for both residential and commercial/industrial land use.

- All detected values for Chlordane, DDT, DDE, and DDD at the site are below the ESL values for both residential and commercial/industrial land use except for the DDT and DDE values in Sample HA-15,

which was collected from the flat southern portion of the site (Plate 3). Sample HA-15 exceeded the ESLs for residential land use for both DDE and DDT, and exceeded the commercial/industrial ESL for DDE.

- The average site-wide values are well-below both PRG and ESL values.

3.8.3.2 Fire Hazards

The specific plan site is located in a Very High Fire Hazard Severity Zone as mapped by the California Department of Forestry and Fire Protection (CAL FIRE) on state wildfire hazard maps (refer to **Figure 3.8-1, Moorpark Very High Fire Hazard Severity Zones**.

According to the *Ventura County General Plan*, fire hazard areas are those areas that are rural/wildland in nature. More specifically, a fire hazard area, per se, extends into all areas where native brush can be found growing in pure, natural stands, which is most common on undeveloped hillside areas "Extreme fire hazard zones" include all areas of high brush and woodland, and all steep slopes, regardless of vegetation. Such conditions can be found on portions of the specific plan site.

Ventura County experiences several types of fires: wildland, structural, chemical, petroleum, electrical, vehicular, and other human-caused material fires. Each type is distinct in its source of fuel, area of ignition, and degree of hazard. The Ventura County Fire Protection District (VCFPD) constantly monitors the fire hazard in the County. "Fire hazard" is defined as the potential loss of life and/or property due to fire; it is further defined as any thing or act which increases or may cause an increase of the hazard or menace of fire to a greater degree than that customarily recognized as normal by persons in the public service regularly engaged in preventing, suppressing, or interfering with the operation of the fire department, or the egress of occupants in the event of fire.

The *City of Moorpark Municipal Code* identifies high fire hazard areas as any area within 500 feet of uncultivated brush, grass, or forest-covered land wherein an authorized representative of the VCFPD determines that a potential fire hazard exists due to the presence of such flammable growth. Potential fire hazards are an important safety concern associated with the vegetation surrounding the specific plan site. Portions of the site are currently covered with highly combustible chaparral vegetation. In the summer and autumn, these areas of the site are highly susceptible to uncontrollable fire hazards because of reduced soil and vegetation moisture, compounded by dry Santa Ana winds that accelerate and intensify wildland fires.

3.8.3.3 Edison Helipad

There is a helipad located approximately 300 feet to the south of the Project site within the boundaries of the Southern California Edison substation. This helipad operates in conformance with applicable Federal Aviation Administration (FAA) and California Aeronautics Program (CAP) regulations. The CAP is responsible for licensing helicopter facilities and takes into account the physical layout of the facility and the flight paths in relation to FAA design standards. Given the location of high-tension lines in the area of the substation, flights coming to the helipad must come in from the south or west.

3.8.3.4 Radon

Radon is present everywhere in the United States. Levels of the gas differ from state to state, but it is particularly high in Alaska and South Dakota. The California Geological Survey (CGS), in cooperation with the California Department of Public Health--Radon Program, has completed seven detailed radon potential maps at 1:100,000 or 1:48,000 scales since 2005. The mapping priority for California coastal counties relates to the presence of Miocene age organic-rich siliceous marine shale and mudstone geologic units such as the Monterey Formation and the Rincon shale which have higher concentrations of radon than nonmarine geologic units.[8]

Radon is an invisible, odorless, radioactive gas formed by the decay of uranium in the earth's soil that migrates to the surface through cracks and pore spaces in the soil. Radon gas dissipates in outdoor settings and is present at concentrations considered to be harmless. However, radon gas can enter buildings through their foundations, and accumulate inside the building and other enclosed spaces, depending on the building location, ventilation, and other factors. While all buildings have a potential for elevated indoor radon levels, those buildings located on rocks and soils containing higher concentrations of uranium and thorium have an increased likelihood of elevated indoor radon levels. Such earth materials include organic-rich shales, some granitic rocks, rhyolites (extrusive igneous rock), and soils derived from these parent rocks.

There are no specific guidelines on what levels of radon gas are acceptable in the natural environment where future habitable structures are considered for construction. The concentration of radon gas in the natural environment is difficult to corollate to potential concentrations within a structure. The U.S. Environmental Protection Agency (US EPA) recommends indoor remedial measures (such as enhanced ventilation) for residential, school, and office uses when radon concentrations exceed 4.0 picoCuries per

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8 *A Geologic Mapping Approach to Identify Radon Hot-Spots in California and Ramifications for The State's Radon Risk Picture*. Ronald Churchill, Ph.D., Senior Engineering Geologist, California Geological Survey, Sacramento, California, July 2016. Included as Appendix 3.8-E to this Draft EIR.

liter (pCi/L) on an average basis (the US EPA action level). The Phase I ESA indicates that the EDR research report (included in Appendix B of the Phase I ESA which is Appendix 3.8-A of this EIR) shows that the levels of radon in 11 sites (out of 255 site that were tested) located within the 93021 zip code in Ventura County (which is the zip code of the Project Site) were above four pCi/L. While the Project Site is located within designated US EPA Radon Zone 1 where the predicted average indoor radon screening levels may be greater than 4 pCi/L, the Project site is underlain by the upper Pliocene-lower Pleistocene age, nonmarine mudstone, conglomerate, and sandstone of the Saugus Formation bedrock[9] rather than the siliceous marine shale and mudstone Monterey Formation and Rincon shale. Given the above, the potential for the Project Site to have radon concentrations above the US EPA Action level is unlikely.

Furthermore, review of the Radon Potential Zone Map for Ventura County, California (Radon Potential Zone Map[10]) by Albus & Associates[11], indicates the site is within a zone defined as a "low potential for indoor levels above four picocuries per liter". The radon zone designations on the map, as discussed in the report accompanying the Radon Potential Zone Map, are based on the radon potential assignments of the geologic units within Ventura County. The radon potentials of the geologic units were evaluated using short-term indoor-radon measurement data provided by the Department of Health Services-Radon Program, airborne radiometric survey data from the NURE project data-National Uranium Resource Evaluation project, geologic maps from the Dibblee Foundation and California Geological Survey (CGS, aka California Division of Mines and Geology), and information on geologic units and indoor-radon measurements from Los Angeles and Santa Barbara Counties. The low potential zone, as defined in the report, are "geologic map units that likely have fewer than 6-percent of associated residences with radon levels that equal or exceed 4.0 pCi/l".

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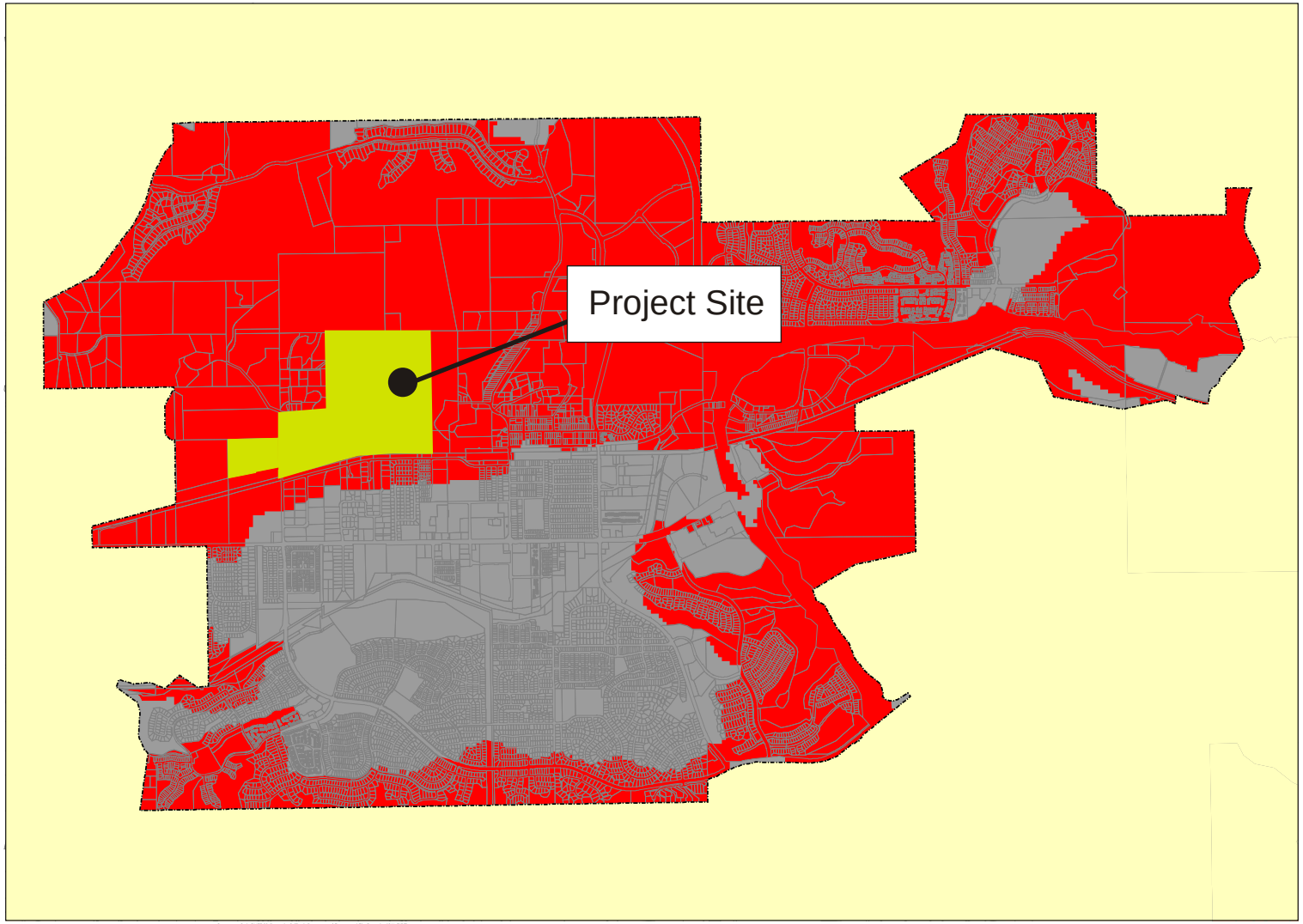
9 *"Updated" Geotechnical Feasibility Investigation for Proposed Residential Development, Tentative Tract 5708 (Hitch Ranch Project), City of Moorpark, California*, Section 3.2.6 Bedrock: Saugus Formation (Qs) page 9, Albus-Keefe & Associates, Inc., September 20, 2019, included as Appendix 3.6-A to this Draft EIR.

10 Churchill, Ronald K. (2006), "Radon Potential Zone Map for Ventura County," California Geological Survey, Special Report 194, dated August 2006.

Churchill, Ronald K., *"Radon Potential in Ventura County 2006 Update,"* California Geological Survey, Special Report 194, dated December 4, 2006.

11 *Evaluation of Potential Indoor Radon Gas Exposure, Proposed Residential Development, Tentative Tract 5708 (Hitch Ranch Project), City of Moorpark, California*, Albus & Associates, Inc., October 19, 2021, included as Appendix 3.8-F to this Draft EIR.



SOURCE: CalFire, 2010.

FIGURE **3.8-1**

IMPACT SCIENCES

Moorpark Very High Fire Hazard Severity Zone

3.8.4 THRESHOLDS OF SIGNIFICANCE

The following thresholds for determining the significance of impacts related to hazards and hazardous materials are contained in the environmental checklist form contained in Appendix G of the most recent update of the *California Environmental Quality Act (CEQA) Guidelines*. Impacts related to hazards and hazardous materials are considered significant if the Project would:

- Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to government code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

3.8.5 METHODOLOGY

Analysis contained in this section is based on site reconnaissance, records reviews, and interviews provided in the Phase I environmental site assessments (ESAs), and Phase II limited soil screening. A records search for reported hazard sites in the vicinity of the Proposed Project site was performed. The Phase I ESAs and records search were performed in conformance with the American Society for Testing

and Materials (ASTM) Standard E1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*.[12]

Definitions

Hazardous Material. A number of properties may cause a substance to be considered hazardous, including toxicity, ignitability, corrosivity, or reactivity. A hazardous material is defined as "a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating irreversible illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed." (Title 22, *California Code of Regulations* [CCR], Section 66084)

Hazardous Waste. Once a hazardous material is ready for discard, it becomes a hazardous waste. A hazardous waste, for the purpose of this report, is any hazardous material that is abandoned, discarded, or recycled (*California Health and Safety Code*, Section 25124). In addition, hazardous wastes occasionally may be generated by actions that change the composition of previously non-hazardous materials. The same criteria that render a material hazardous make a waste hazardous: toxicity, ignitability, corrosivity, or reactivity.

3.8.6 ENVIRONMENTAL IMPACTS

Impact HAZ-1 **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.**

Less Than Significant

A significant impact would occur if the Proposed Project would create a significant hazard though the routine transfer, use, or disposal of hazardous materials. Construction of the Proposed Project would involve the use of those hazardous materials that are typically necessary for construction of residential development (i.e., paints, building materials, cleaners, fuel for construction equipment, etc.) Therefore, construction of the Proposed Project would involve routine transport, use, and disposal of these types of hazardous materials throughout the duration of construction activities. However, the transport, use, and disposal of construction-related hazardous materials would occur in conformance with all applicable local, state, and federal regulations governing such activities. For example, the Proposed Project would be

[12] American Society for Testing and Materials, Standard E1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

required to implement standard best management practices (BMPs) set forth by the City and the Los Angeles Regional Water Quality Control Board (RWQCB) which would ensure that wastes generated during the construction process are disposed of properly. Therefore, the Proposed Project would not create a significant impact related to routine transport, use, or disposal of hazardous materials during construction and impacts would be less than significant.

The Proposed Project would provide up to 755 units of residential development a neighborhood park site, and flood-control facilities. During Project operation, typical household chemicals such as cleaning solvents would be used in the Project residences. However, these products do not pose a substantial risk to people or property and are not likely to be hazardous to the environment if correctly disposed of. Operational impacts for hazards and the use of hazardous substances by the Project site would not have the potential to result in significant impacts associated with the transportation, use, or disposal of these household chemicals. The City of Moorpark maintains a household hazardous waste program that provides for the disposal of these materials. Project impacts related to this issue would be less than significant.

Impact HAZ-2 **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.**

Less Than Significant with Mitigation

As noted in the preceding section, compliance with federal, state, and local laws and regulations relating to transport, storage, disposal and sale of hazardous materials would minimize any potential for accidental release or upset of hazardous materials.

As previously discussed, series of Environmental Site Assessments (ESAs) were completed for the Proposed Project site.

At the time the 2006 site visit was performed by AET, no underground storage tanks, aboveground fuel tanks, pits, ponds, stressed vegetation, significant debris, or stained soil were observed on the site. No structures were observed on the site other than an empty water tank in the northeast portion of the site, the concrete slabs, and some charred wood in the central portion of the site, and three water well locations along the southern portion of the site.

No evidence of the former orchards, or most of the areas of potential concern (APC) identified by GE in the 1998 Phase I ESA Report, were observed by AET during the site visit. However, because of the

potential use of organochlorine pesticides in the areas of the site formerly developed with orchards (such as DDT) further soils testing was performed.

AET established an approximate grid pattern with 15 locations in the east and south portions of the site where most of the orchards observed on the aerial photographs had been located.

Five pesticide compounds were detected: Dichlorodiphenyltrichloroethane (DDT), its two daughter products Dichlorodiphenyldichloroethylene (DDE) and Dichlorodiphenyldichloroethane (DDD), Alpha Chlordane, and Gamma Chlordane. The laboratory results are summarized below.

- Alpha and Gamma Chlordane were detected only in Sample HA-1 at 0.073 milligrams per kilogram per kilogram (mg/kg), and 0.53 mg/kg, respectively.

- DDT was detected in 14 of the 15 samples ranging from 1.7 mg/kg in Sample HA-15 to 0.01 mg/kg in Samples HA-5 and HA-11. The second highest concentration was 0.111 in Sample HA-2. DDT was not detected in Sample HA-3. The average concentration (using the reporting limit of 0.004 for the ND sample) is 0.141 mg/kg. Eliminating Sample HA-15 (1.7 mg/kg), the remaining 14 samples had an average DDT concentration of 0.03 mg/kg.

- DDE was detected in all 15 samples ranging from 4.96 mg/kg in Sample HA-15 to 0.005 mg/kg in Sample HA-3. The second highest concentration was 0.497 mg/kg in Sample HA-14. The average concentration is 0.41 mg/kg. Eliminating Sample HA-15 (4.96 mg/kg), the remaining 14 samples had an average DDE concentration of 0.084 mg/kg.

- DDD was only detected in Sample HA-9 at 0.045 mg/kg.

Soil screening levels were reviewed for the detected compounds from two sources: the United States Environmental Protection Agency (US EPA) 2004 Preliminary Remediation Goals (PRGs) for evaluating and cleaning up contaminated sites, and the California Regional Water Quality Control Board (RWQCB) San Francisco Region 2005 Interim Final Environmental Screening Levels (ESLs) for environmental concerns at sites with contaminated soil and groundwater. The following results were found:

- All detected values for Chlordane, DDT, DDE, and DDD at the site are at or below the PRG values for both residential and commercial/industrial land use.

- All detected values for Chlordane, DDT, DDE, and DDD at the site are below the ESL values for both residential and commercial/industrial land use except for the DDT and DDE values in Sample HA-15, which was collected from the flat southern portion of the site (Plate 3). Sample HA-15 exceeded the

ESLs for residential land use for both DDE and DDT, and exceeded the commercial/industrial ESL for DDE.

- The average site-wide values are well-below both PRG and ESL values.

The area where Sample HA-15 was collected (the flat southern portion of the site north the concrete channel and railroad track, and between the entrance gate on the east and Gabbert Road on the west) is not planned for residential development, this area may be the location of the westward extension of High Street from Moorpark Avenue to Gabbert Road. There would be no impact from organochlorine pesticides along the southern portion of the site provided that the area is not developed with residential units. Based on the sampling results collected to date, impacts related to residual organochlorine pesticide concentrations in the shallow soil for residential development on the remainder of the site would be less than significant. No further analysis is required in the EIR.

As previously discussed, no structures are located on the Project site. Thus, exposure to asbestos containing materials and/or lead-based paints would not occur. Accordingly, any threat of upset or accidental release of would be less than significant. No further analysis is required in the EIR.

A total of 15 water wells have historically been identified on the Project site. Five of the wells are known to have been destroyed; however, for the other ten the status is listed as '*Can't Locate Indeterminable*'. The Ventura County Public Works Agency (VCPWA) has stated that if any of the wells with a status of '*Can't Locate Indeterminable*' are found during grading or development of the property, the applicant must destroy the well. If the existing wells are not properly abandoned, they could act as a conduit for contamination, if present, to migrate to an aquifer. The VCPWA did not issue specific conditions for water well abandonment on the specific plan site, but provided minimum conditions for abandonment. Without proper abandonment, impacts to groundwater from potential on-site contamination would be considered significant. However, this impact will be reduced to a less than significant level by implementing **Mitigation Measure HM-1**.

As indicated previously, the Phase I ESA indicates that the EDR research report (included in Appendix B of the Phase I ESA which is **Appendix 3.8-A** of this EIR) shows that the levels of radon in 11 sites (out of 255 site that were tested) located within the 93021 zip code in Ventura County (which is the zip code of the Project Site) were above four pCi/L. While the Project Site is located within designated US EPA Radon Zone 1 where the predicted average indoor radon screening levels may be greater than 4 pCi/L, the Project site is underlain by the upper Pliocene-lower Pleistocene age, nonmarine mudstone,

conglomerate, and sandstone of the Saugus Formation bedrock13 rather than the siliceous marine shale and mudstone Monterey Formation and Rincon shale. Given the above, the potential for the Project Site to have radon concentrations above the US EPA Action level is unlikely. As such, the exposure hazard from radon vapor encroachment and concentration in structures built on the Project Site is considered low; impacts would be less than significant, and no mitigation is required.

Impact HAZ-3 **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.**

Less Than Significant

Construction

The nearest public schools, Walnut Canyon Elementary, and Union High School, are immediately adjacent to the east of the Proposed Project site. Chaparral Middle School is located directly south of the Proposed Project site, across Poindexter Avenue.

Construction of the Proposed Project would involve the routine use and transport of hazardous materials such as fuel, building materials, and paint. No acutely hazardous materials would be used or transported. Compliance with all applicable regulations would reduce impacts to less than significant.

Operation

The residential uses proposed on the Project site would not emit hazardous emissions or result in the use of any acutely hazardous materials. Typical household chemicals such as cleaning products would be used and stored on the Project site, but these substances would not present a significant risk to adjacent uses. Impacts would, therefore, be less than significant.

Impact HAZ-4 **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.**

No Impact

California Government Code Section 65962.5 requires various State agencies, including but not limited to, the Department of Toxic Substances Control (DTSC) and the SWRCB, to compile lists of hazardous waste

13 *"Updated" Geotechnical Feasibility Investigation for Proposed Residential Development, Tentative Tract 5708 (Hitch Ranch Project), City of Moorpark, California*, Section 3.2.6 Bedrock: Saugus Formation (Qs) page 9, Albus-Keefe & Associates, Inc., September 20, 2019, included as Appendix 3.6-A to this Draft EIR.

disposal facilities, unauthorized releases from underground storage tanks, contaminated drinking water wells and solid waste facilities where there is known migration of hazardous waste and submit such information to the Secretary for Environmental Protection on at least an annual basis. A significant impact may occur if a Project site is included on any of the above lists and poses an environmental hazard to surrounding sensitive uses.

A government database report, prepared by Environmental Data Resources (EDR) of Southport, Connecticut of available federal, state and county agency databases was reviewed to identify government regulated properties having known recognized environmental conditions and potential environmental concerns within the vicinity of the Site. Because of the size of the Site, the radii of investigation for the Federal and State agency lists were extended up to 2.0 miles. A description of the government databases reviewed is detailed in the EDR reports. Also included in the EDR reports are maps illustrating the location of listed properties relative to the location of the Site.

Complete copies of the EDR reports are provided as Appendix B to the Amicus report **(Appendix 3.8-A)**, Attachment C to the AET report **(Appendix 3.8-D**). A summary of properties that could not be mapped by EDR but were identified as potentially within the Site vicinity (orphan properties) is also included in the EDR reports. Of the listed unmappable properties, none are identifiable as being located adjacent to the Site. The pertinent findings of the government database review are summarized below.

- The Site is not identified in the EDR reports as a hazardous material site compiled pursuant to Government Code section 65962.5.

- The Site is not located with 1.0 mile of a federal Superfund property.

As the Site is not listed as a hazardous material site compiled pursuant to Government Code section 65962.5, there would be no impact.

Impact HAZ-5 **For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

Less Than Significant

The nearest airports are located approximately 11 miles to the northwest (Santa Paula Airport) or southwest (Camarillo Airport). However, there is a private helipad located approximately 250 feet south of the southeast Project boundary. Construction impacts would short-term in nature and would not

significantly impact landing or takeoff operations. During the operation of the Project, the nearest buildings to the helipad would be single-family residences in Planning Area 2. The heights of these buildings would be a maximum of 28 feet to the top of the roof. According to Federal Aviation Administration (FAA) regulations, a helipad would require a minimum of 280 feet for a protection zone (in the takeoff and landing area direction). The nearest building, Planning Area 2 would be 2,750 feet from the helipad. In addition, given the location of the high-tension lines it is not likely that the helicopter would either take off or approach over the Project site. Therefore, impacts would be less than significant.

Impact HAZ-6 **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.**

Less Than Significant

The City of Moorpark General Plan Safety Element, the Ventura County Emergency Preparedness Guide ('Ready. Ventura County'[14]), and the Ventura County Fire Department 'Ready, Set Go! Wildfire Action Plan'[15] do not specify any existing roadways as designated emergency evacuation routes. The 'Ready. Ventura County' booklet simply states: "Have several travel routes in case one route is blocked by the fire or by emergency vehicles and equipment. Choose an escape route away from the fire.", similar language is provided in the Ready, Set, Go!' booklet.[16]

As discussed in the Project Description, access to the site will be improved as indicated in the Moorpark's General Plan Circulation Element, North Hills Parkway would ultimately be constructed as a four-lane roadway. Gabbert Road would be improved to a four-lane arterial roadway from North Hills Parkway to the Proposed Project terminus of High Street, tapering down to cross the Union Pacific Railroad tracks and continuing to the point of connection with Poindexter Avenue. North of North Hills Parkway, Gabbert Road would taper back to its existing width.

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14 Ventura County Emergency Preparedness Guide, '*Ready. Ventura County*', available online at: http://vcportal.ventura.org/vcfd/docs/VC_EPG.pdf, accessed October 25, 2021.

15 Ventura County Fire Department, '*Ready, Set Go!*'', available online at: https://vcfd.org/wp-content/uploads/2020/02/VCFD-RSG-Wildfire-Action-Plan-Booklet-2016.pdf, accessed October 25, 2021.

16 It should be noted that three eastern Ventura County's cities, Thousand Oaks, Simi Valley and Moorpark, have begun work on developing a joint regional evacuation plan for natural disasters such as wildfires and earthquakes. The plan will include the creation and implementation of a regional evacuation plan and procedures, including training for city and partner agency staff. The partner agencies are the Ventura County Sheriff's Office, which authorizes evacuations, and the Ventura County Fire Department. More information available on the Ventura County Star's website online at: https://www.vcstar.com/story/news/local/2021/08/18/evacuation-plan-natural-disasters-gets-boost-east-ventura-county-cities/8148908002/, published August 18, 2021.

The circulation upgrades not only benefit the Proposed Hitch Ranch Project, they would also provide a public benefit to the surrounding communities and elementary school by providing additional access to these existing one-way in and out communities. Access to the Gabbert Canyon neighborhood to the northwest will be improved by expanding Gabbert Road to be a four-lane arterial roadway and by providing a new easterly evacuation route by extending High Street from its current terminus east of the Project site across the southern boundary of the Project site north to the railroad track to Gabbert Road. The Meridian Hills neighborhood to the northeast will be improved by providing a southerly evacuation route through Hitch Ranch by extending Meridian Hills Drive from the existing terminus and connecting it to Street "A" at North Hills Parkway. Finally, Walnut Canyon Elementary school to the east is currently accessed by a dead end, two-lane road off Moorpark Avenue. There presently are no evacuation routes or secondary vehicle access roads to the school. However, the Proposed Project would provide an additional evacuation route through the Hitch Ranch community by extending Casey Road from its terminus east of the Project site west into PA2, PA3, and PA4.

The Proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; impacts would be less than significant.

Impact HAZ-7 **Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.**

Less Than Significant

According to the Fire Protection Division of the Ventura County Fire Protection District, the specific plan area is a designated "high fire hazard area." A "high fire hazard area" is defined as any area or structure within 500 feet of standing brush or grass. In addition, the site is categorized as being within a Very High Fire Hazard Severity Zone (VHFHSZ) by the California Department of Forestry and Fire Protection (CAL FIRE).

Construction Impacts

A large amount of wood framing would occur on the specific plan site during construction. In association with the framing operations, electrical, plumbing, communications, and ventilation systems would be installed in each structure. Although rare, fires do occur at construction sites. The electrical, plumbing, and mechanical systems for the development would be installed in accordance with City of Moorpark codes and inspected by City personnel prior to drywall installation. In addition, construction sites are subject to City requirements relative to water availability and accessibility to firefighting equipment.

Proper adherence to City codes and requirements would, therefore, reduce the potential for fire hazards to occur at the specific plan site to levels below the thresholds of significance.

In addition, construction traffic would occur on and near the Project site during working hours associated with commuting construction workers, trucks, and other large construction vehicles. Slow-moving, construction-related traffic on local adjacent roadways may temporarily reduce optimal traffic flows on local roadways and could conceivably delay emergency service vehicles. This impact is not considered significant given the periodic and short-term nature of any construction-related traffic. With the use of flagmen and other standard construction practices such as traffic detour plans, haul routes, hours of operation, protective devices, warning signs, and access to abutting properties during construction, no significant impacts are expected.

Operational Impacts

At buildout of the specific plan, up to 755 dwelling units, with additional open space uses, would be constructed. Based on an estimated 3.3 persons per household for the City of Moorpark, buildout of the specific plan would result in the addition of approximately 2,492 persons to the City's population. According to the Fire Protection Division of the Ventura County Fire Department (VCFD), fire protection services in the City of Moorpark are adequate, and will be able to serve future growth in the City. Future fire service needs are evaluated annually, based upon the current population, projected population, and proposed new development. A fee is assessed by VCFD on all new development at the time building permits are issued to ensure that VCFD grows in concert with the City's population.

Anticipated Frequency and Nature of Emergency Occurrence (Special Fire Protection Problems)

The frequency and nature of future emergency calls is difficult to predict. No uses allowed in the specific plan are unusual or have the potential to generate an unusual number or type of calls for service. However, the specific plan site is located in an area designated as a "high fire hazard area." Construction would, therefore, be required to comply with all applicable building and fire code requirements. These requirements may include items such as types of roofing materials, building construction, brush clearance, fire hydrant flows, hydrant spacing, access and design, and other hazard reduction programs, as set forth by VCFD.

With implementation of standard conditions, regulatory compliance measures, and VCFD Ordinances, potential impacts related to a significant risk of loss, injury or death involving wildland fires would be reduced to less than significant levels. Refer also to **Section 3.18. Wildfire**, for additional analysis.

3.8.7 CUMULATIVE ANALYSIS

The hazards impacts associated with a Proposed Project usually occur on a project-by-project basis rather than cumulatively. Because Project implementation would comply with regulatory controls to abate site-specific hazards, any potential cumulative impacts associated with the Project are expected to be decreased, as the harmful substances will have been removed from the site. Cumulative impacts associated with the Proposed Project are, therefore, considered less than significant.

Considerations regarding placing residential units near wildfire hazard areas are cumulative, due to evacuation and emergency egress, and the possible traffic impacts that may occur if dense developments were evacuated simultaneously. The Proposed Project would provide additional roadways that could act as routes for emergency egress that would help offset the increased number of vehicles using roadways near the Project site. Furthermore, traffic impacts identified in **Section 3.15, Transportation** indicate that emergency vehicle impacts, and impacts identified in **Section 3.18, Wildfire** indicate that would be less than significant with mitigation. The cumulative impact of the Project site on wildfire hazards would be considered less than significant.

3.8.8 MITIGATION PROGRAM

3.8.8.1 Standard Conditions and Regulatory Requirements

- Concurrently with the issuance of a building permit, the Fire Protection Facilities Fee must be paid to the Building and Safety Division in accordance with City Council adopted Fire Protection Facilities Fee requirements in effect at the time of building permit application. ***City of Moorpark***

- Prior to combustible construction, an all-weather access road/driveway and the first lift of the access road pavement must be installed. Once combustible construction starts a minimum 20-foot clear width access road/driveway must remain free of obstruction during any construction activities within the development. All access roads/driveways must have a minimum vertical clearance of 13 feet 6 inches and a minimum outside turning radius of 40 feet. ***Ventura County Fire Protection District, Fire Prevention Bureau, Ordinance Number 29***

- Approved turnaround area for fire apparatus must be provided when dead-end Fire District access roads/driveways exceed 150 feet. Turnaround areas may not exceed a 5 percent cross slope in any direction and must be located within 150 feet of the end of the access road/driveway. ***Ventura County Fire Protection District, Fire Prevention Bureau, Ordinance Number 29***

- The access road/driveway must be extended to within 150 feet of all portions of the exterior wall of the first story of any building and must be in accordance with Fire District access standards. Where the access roadway cannot be provided, approved fire protection system or systems must be installed as required and acceptable to the VCFPD. ***Ventura County Fire Protection District, Fire Prevention Bureau, Ordinance Number 29***

- When only one access point is provided, the maximum length of the access road may not exceed 800 feet. ***Ventura County Fire Protection District, Fire Prevention Bureau, Ordinance Number 29***

- Public and private roads must be named if serving more than four parcels or as required by the VCFPD. All street naming shall be in accordance with currently adopted City Council policy. ***Ventura County Fire Protection District, Fire Prevention Bureau, Ordinance Number 29 and City of Moorpark***

- Approved walkways must be provided from all building openings to the public way or VCFPD access road/driveway. ***Ventura County Fire Protection District, Fire Prevention Bureau, Ordinance Number 29***

- All new structures must be provided with an automatic fire sprinkler system in accordance with current Ventura County Fire Protection District Ordinance. ***Ventura County Fire Protection District, Fire Prevention Bureau, Ordinance Number 31***

- Commercial trash dumpsters and containers with an individual capacity of 1.5 cubic yards or greater may not be stored or placed within five (5) feet of openings, combustible walls, or combustible eave lines unless protected by approved automatic sprinklers. ***Ventura County Fire Protection District, Fire Prevention Bureau, Ordinance Number 31***

3.8.8.2 Mitigation Measures

HM-1 Water Well Mitigation

If any water wells are found during grading or development of the property, the following minimum conditions for well destruction shall be met:

- Pump and motor shall be removed, and the interior of the well shall be filled with inert material (clean sand or gravel) from total depth to within 40 feet of ground surface or remove debris in well casing to a depth of 40 feet.

- Well casing shall be perforated at least every foot opposite the sealing zone from a depth of 40 feet to within 10 feet of finish grade. Perforations shall be placed on alternating sides of the casing.

- Neat cement sealing material shall be applied from a depth of 40 feet to within 5 feet of finish grade by means of a grout pipe placed within 2 feet of the base of the sealing zone. If static water level is deeper than 40 feet, grout pipe is not necessary.

- Casing shall be removed to a depth of 5 feet below finish grade, and work area backfilled with native materials.

- County of Ventura Public Works Inspector shall be present during casing perforation work and placement of all sealing material. 24 hour advance notice is required for Public Works Inspections.

- All work shall be performed by a well contractor licensed in the State of California and registered with the County of Ventura.

Timing/Implementation: During ground moving activities in event wells are discovered

Enforcement/Monitoring: City of Moorpark Community Development and/or Public Works Department and Ventura County Public Works

3.8.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The development of the Hitch Ranch Specific Plan project would have less than significant impacts related to hazards and hazardous materials with implementation of standard conditions, regulatory requirements, and the mitigation program.

3.9 HYDROLOGY AND WATER QUALITY

INTRODUCTION

This section summarizes the hydrology, drainage, and water quality analyses performed by Kasraie Consulting, for the Project. A detailed presentation of the technical data and calculations is provided in ***Appendix 3.9*** *of this environmental impact report (EIR). This section includes an evaluation of the existing conditions on the site, a comparison of the pre-project and the post-project conditions, a determination of the potential impacts of the project, and recommended mitigation measures. The purpose of this technical evaluation is to determine the impact of the Plan on surface water drainage, groundwater quality, and storm water quality in the vicinity of the site that are tributary to the Walnut Canyon watershed.*

3.9.1 EXISTING CONDITIONS

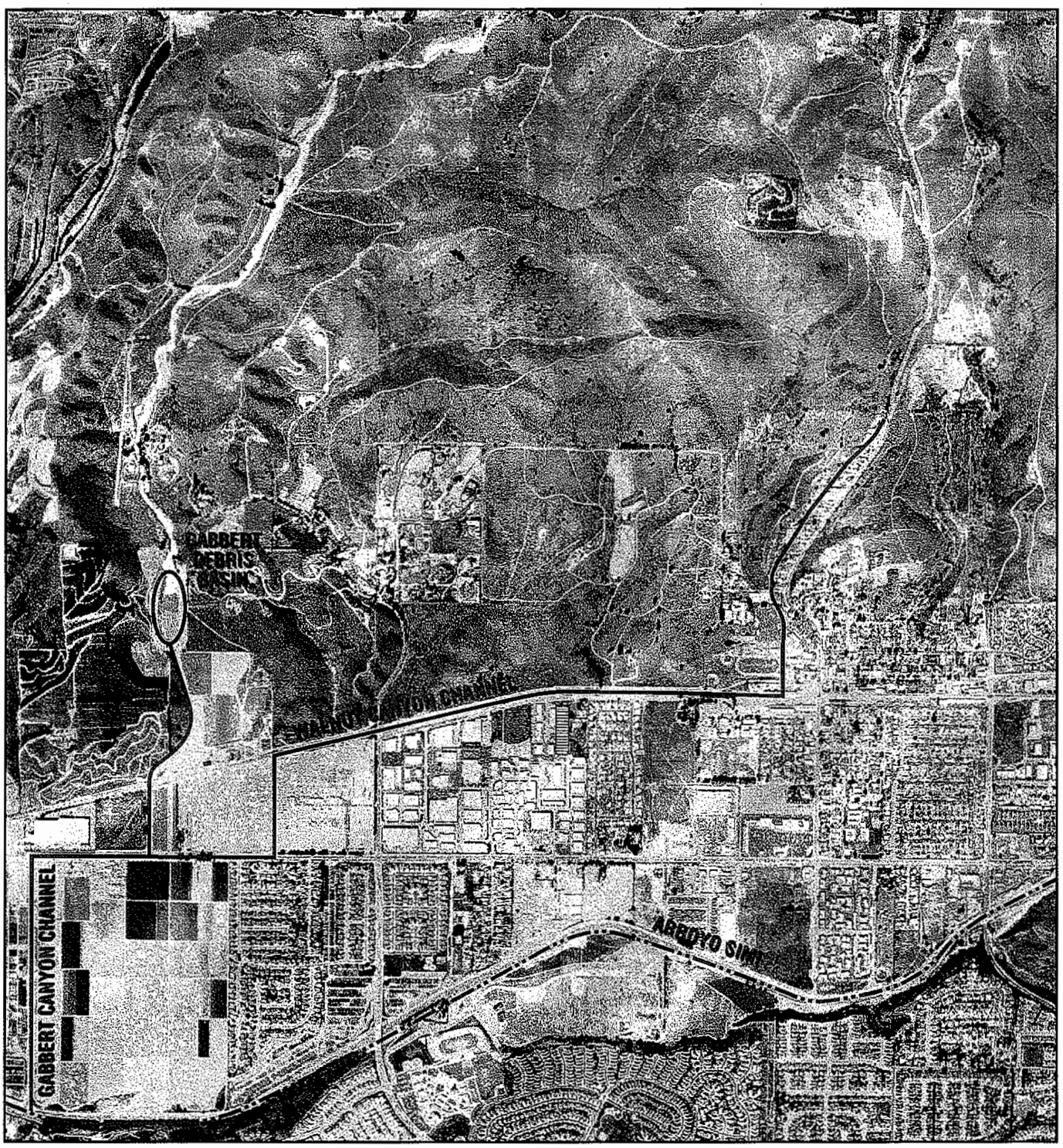
3.9.1.1 Watershed

The Project consists of the conversion of approximately 277.30 acres of predominately undeveloped vacant land to a mix of residential, open space, flood detention, and transportation land uses. The site is located in southeastern Ventura County within the City of Moorpark, just north of Poindexter Avenue between Walnut Canyon Road and Gabbert Road. The Plan area lies within the Walnut Canyon watershed, which drains a low-lying portion of the Santa Susana Mountains southwest into the Arroyo Simi and ultimately into Calleguas Creek.

The Plan area is presently undeveloped land. The existing drainage pattern is primarily overland sheet flow collecting into several natural watercourses that traverse the site and discharge to the existing rectangular, concrete Walnut Canyon Channel via overspill pads at various locations along the top of bank of the channel.

The overall Hitch Ranch watershed includes approximately 721 acres of land that is tributary to Walnut Canyon Channel. The off-site watershed is approximately 436 acres of hilly terrain with a cover of weedy vegetation, chaparral, and scrub brush. (Refer to **Figure 3.9-1, Walnut Canyon Watershed Regional Aerial Photograph**)

Walnut Canyon Channel consists primarily of approximately 2.5 miles of improved concrete channels that were originally constructed by the Soil Conservation Service (SCS) between 1959 and 1962. These regional drainage facilities are located in Zone 3 of the Ventura County Flood Control District (VCFCD), a precursor to the Ventura County Watershed Protection District (VCWPD).



SOURCE: Ventura County Flood Control District, March 1997.

FIGURE **3.9-1**

IMPACT SCIENCES

Walnut Canyon Watershed Regional Aerial Photograph

A 1997 study, *Gabbert and Walnut Canyon Channels Flood Control Deficiency Study* identified existing deficiencies within both the Gabbert and Walnut Canyon Channel system. Due to recent private development on a significant portion of this watershed area and limited hydraulic conveyance capacity of the existing channel system, flood protection deficiency exists and is documented on the current Flood Insurance Rate Map (FIRM) for the City of Moorpark. Shallow flooding occurring from channel overtopping has been documented.

There are no improved channels existing within the Plan area. All existing creek and stream beds are unimproved and undisturbed. Walnut Canyon Channel borders approximately 5,600 feet of the Project site along the southern border. The entire Walnut Canyon Channel is owned and maintained by VCWPD. The existing channel system consists almost entirely of a concrete rectangular channel section. The depths of the channel primarily range from 4 to 6 feet for the entire length. The average slopes of the channel vary from 1.5 percent to 3 percent in the upstream reaches where the canyon is steep to approximately 0.5 percent in the lower sections within the Arroyo Simi floodplain where it is much flatter. The channel base widths in the Walnut Canyon Channel range from 7 to 12 feet. There are no existing debris basins, detention basins, or agricultural basins within the existing Plan area.

3.9.1.2 Floodplain Mapping and Hydraulic Modeling

Flooding

The County of Ventura participates in the National Flood Insurance Program (NFIP). NFIP participants must adopt and enforce minimum floodplain management standards, including identification of flood hazards and flooding risks. Participation in the NFIP allows communities to purchase low-cost insurance protection against losses from flooding.

The potential for flooding directly associated with the limited hydraulic capacity of the Gabbert and Walnut Canyon Channel systems is reflected in the published floodplain mapping for the Moorpark area which indicates the 100-year flooding through the urbanized portions of the City. The current FIRM for the City of Moorpark became effective January 20, 2010 and is shown on panels 06111C818E through 06111C0836E[1].

[1] Federal Emergency Management Agency. *FEMA Flood Map Service Center: Search by Address*. Available online at: https://www.msc.fema.gov/portal/search?AddressQuery=moorpark%2C%20california, accessed February 25, 2020.

Figure 3.9-2 – FEMA Flood Zone Map

As shown on **Figure 3.9-2, FEMA Flood Zone Map** (FIRM Panel 06111C0817E for the Walnut Canyon Channel) the current flood zones within the Hitch Ranch development site are designated at Zone X (500-year flood zone) along Walnut Canyon Drain, and shown as an Approximate Zone A along Gabbert Road (100-year flood zone).

As shown on the FIRM maps, flooding on the Project site is limited to the southern portion of the site in the area of the proposed regional detention basins and along the unnamed creek adjacent to Gabbert Road.

Hydraulic Analysis

The VCWPD's window-based Modified Rational Method application Ventura County Rational Method Hydrology Model, version 2.64.0.37 (VCRAT) was used to develop a runoff hydrograph from each individual subarea. The hydrology model corresponds to a "link-node" model that simulates the physical rainfall-runoff processes occurring in the watershed. Runoff hydrographs are computed within the model for each subarea, routed through the conveyance system, and combined with other subarea hydrographs as the analysis proceeds downstream through watershed.

The study area watershed is an ungaged watershed (one that is separated from other drainages), and synthetic methods are necessary in order to predict the rainfall-runoff response. The baseline hydrology study prepared by VCWPD for the Gabbert and Walnut Canyon Channel watershed developed a series of hydrologic parameters to characterize the watershed subareas and evaluate the runoff.

For a specified design storm, VCRAT calculates a hydrograph of runoff at all subarea collection points within the watershed, combines hydrographs from each subarea, and routes the combined hydrograph through the defined channel system. The program accounts for channel storage and it reports peak flow rates in each reach of each drain, coincident flowrates of tributaries at confluences, and hydrographs at subarea collection points as specified in the program input. The required input data for a subarea consists of the area, time of concentration (Tc), soil type, and design storm type. Channel routing parameters can be added if needed. If a subarea is provided with channel routing information, the program routes the accumulated flow from that subarea and any tributary subarea down to the collection point for the next subarea (downstream end of the channel) before it is confluenced with the hydrograph from the next downstream subarea. The result is the calculation of a peak flow rate and hydrograph based on a synthetic unit hydrograph for the specified design storm frequency.

3.9.1.3 Water Quality

Storm Water Quality Regulations

Section 303 of the federal Clean Water Act requires states to adopt water quality standards for all surface waters of the United States. Section 304(a) requires the Environmental Protection Agency (EPA) to publish water quality criteria that accurately reflects the latest scientific knowledge of the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. Section 303(c)(2)(b) of the Clean Water Act requires states to adopt numerical water quality standards for toxic pollutants for which the EPA has published water quality criteria and which reasonably could be expected to interfere with designated uses in a water body.

Water quality objectives for all waters in the state are established under applicable provisions of Section 303 of the federal Clean Water Act and the state Porter-Cologne Water Quality Control Act. The California State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB) are responsible for assuring implementation of and compliance with the Clean Water Act and the Porter-Cologne Water Quality Control Act.

National Pollutant Discharge Elimination Systems Permits. The National Pollutant Discharge Elimination System (NPDES) permit system was established as part of implementation of the Clean Water Act to regulate municipal and industrial discharges to surface waters of the United States. The Clean Water Act prohibits the discharge of any pollutant into navigable waters from a point source unless the discharge is in compliance with a NPDES Program permit. The purpose of the NPDES program is to manage urban storm water, thus minimizing pollution of the environment to the maximum extent practicable. The NPDES program consists of characterizing receiving water quality, identifying harmful constituents, targeting potential sources of pollutants, and implementing a comprehensive storm water management program.

The NPDES Program requires local agencies and project applicants to obtain permits to discharge storm water into "waters of the State." The regulations provide that discharges of storm water to waters of the United States from construction activities are effectively prohibited unless the discharge is conducted in compliance with an NPDES permit. Construction activities subject to this General Permit include clearing, grading, disturbances to the ground such as stockpiling, and excavation. Disturbance refers to exposed soil resulting from activities such as clearing, grading, and excavating. Construction activities can include road building, construction of buildings, and demolition.

In 1990, the EPA promulgated rules establishing Phase I of the NPDES storm water program. Phase I addresses—among other discharges—discharges from large construction activities disturbing 5 acres or more of land. The EPA finalized the Phase II Storm Water Program in December 1999. The Phase II Storm Water Program generally provides that regulated operators of small "municipally owned storm water systems (MS4s)" located in urban areas, which are defined to include universities, shall implement programs and policies to control polluted storm water runoff through the use of NPDES permits. Phase II also covers small construction activities that result in land disturbance of equal to or greater than 1 acre and less than 5 acres.

Each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the Clean Water Act contain general requirements regarding NPDES permits. Section 402(p) of the Clean Water Act (an amendment to Section 404) established a framework for regulating construction storm water discharges under the NPDES Program. Section 307 describes the factors that EPA must consider in setting effluent limits for priority pollutants.

State Water Quality Regulations. In California, the NPDES Program is administered by the nine California Regional Water Quality Control Boards (RWQCBs). Each RWQCB is required to adopt a water quality control plan, or basin plan, as required by Section 303 of the CWA and the Porter-Cologne Water Quality Control Act. The plans establish water quality standards and objectives for California rivers and their tributaries. The Porter-Cologne Water Quality Control Act requires that basin plans recognize and reflect regional differences in existing water quality, the beneficial uses of the region's ground and surface waters, local water quality conditions and problems, and that they implement a program for achieving water quality objectives (*California Water Code*, Section 13050[j]).

Regional Water Quality Regulations. General Construction Activity Storm Water NPDES permits (General Permit) are issued for storm water discharges by the RWQCB. The Hitch Ranch Specific Plan site is within the Los Angeles Regional Water Quality Control Board.

The Los Angeles Regional Water Quality Control Board's (LARWCB) has established numeric sizing criteria for post-construction best management practices (BMPs) for new development within Ventura County and the incorporated cities under Order No. R4-2010-0108. The proposed numeric sizing criteria is intended to reduce adverse impacts to Los Angeles regional waters caused by new sources of urban pollution and increased volumes of storm water and non-storm water flows resulting from new development. The proposed water quality facilities will comply with the LARWCB water quality permit/order as follows:

1. Site Design Principles and Techniques are a stormwater management strategy that emphasizes conservation and use of existing site features to reduce the amount of runoff and pollutant loading that is generated from a project site.

2. Source Control Measures limit the exposure of materials and activities so that potential sources of pollutants are prevented from making contact with stormwater runoff.

3. Retention BMPs are stormwater BMPs that are designed to retain water onsite, and achieve a greater reduction in surface runoff from a project site than traditional stormwater Treatment Control Measures. The term "Retention BMPs" encompasses infiltration, rainwater harvesting, and evapotranspiration BMPs. Retention BMPs are preferred and shall be selected over biofiltration BMPs and Treatment Control Measures where technically feasible to do so.

4. Biofiltration BMPs are vegetated stormwater BMPs that remove pollutants by filtering stormwater through vegetation and soils.

5. Treatment Control Measures are engineered BMPs that provide a reduction of pollutant loads and concentrations in stormwater runoff.

Applicable projects (Section 1.4) must reduce Effective Impervious Area (EIA) to less than or equal to five percent (≤5%) of the total project area, unless infeasible. Impervious surfaces are rendered "ineffective" if the design storm volume is fully retained onsite using Retention BMPs. Biofiltration BMPs may be used to achieve the 5% EIA standard if Retention BMPs are technically infeasible.

Storm Water Non-Point Source Pollutants

The effects of urbanization, agriculture, and ranching can cause increased levels of non-point source pollutants in storm water runoff. This runoff can have a negative impact on adjacent streams and other receiving waters. Receiving waters can assimilate naturally a limited quantity of various constituent pollutants, but there are thresholds beyond which the measured amount results in an undesirable impact. The evaluation of a project includes whether it will impair the beneficial use of the receiving waters. Beneficial uses, as set forth in the Water Quality Control Plan, Los Angeles Region, Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties (1994), include municipal and domestic water supply, industrial water supply, groundwater recharge, freshwater replenishment, contact and non-contact recreation, warm freshwater ecosystem, and wildlife habitat. Non-point source pollutants are characterized by major categories—sediment, nutrients, trace metals, oxygen-demanding substances, bacteria, oil and grease, and other toxic chemicals—in order to assist in determining the pertinent data and its use. Receiving waters can assimilate a limited quantity of various constituent elements. However,

there are thresholds beyond which the measures amount becomes a pollutant and results in an undesirable effect.

Typical non-point source pollutants include the following:

Sediment. Sediment is comprised of tiny soil particles that are washed or blown into surface waters; it is the major pollutant by volume in storm water runoff. Suspended soil particles can cause the water to look cloudy or turbid and also act as a vehicle to transport other pollutants including nutrients, trace metals, and hydrocarbons. Construction sites are the largest source of sediment for urban areas under development.

Another major source of sediment is stream bank erosion, which an increase in peak rates and volumes of runoff from urbanization can accelerate. Detention and retention basins, depending on location, often have the affect of adding perennial water to drainage courses that previously had runoff only during the rainy season. Shallow aquifers throughout the area fill due to this constant flow. Perennial flow can be present in locations that did not previously exist. A constant wet bottom in a channel or drainage course causes faster and higher peak flows plus additional erosion in the soft bottom channels, which is considered problematic.

Nutrients. Nutrients are a major concern for surface water quality, especially phosphorous and nitrogen, which can cause algae and excessive vegetative growth. When nitrogen fertilizer is applied to lawns or other areas in excess of plant needs, nitrates can leach below the root zone, eventually reaching groundwater. Orthophosphate from auto emissions also contributes phosphorus in areas with heavy automobile traffic. Nutrient export is typically greatest from development sites with the most impervious areas. Other problems resulting from excess nutrients are surface algae, water discolorations, odors, toxic releases, and overgrowth of plants.

Trace Metals. Trace metals are primarily a concern because of their potential toxic effects on aquatic life and their potential to contaminate drinking water supplies. The most common trace metals found in urban runoff are lead, zinc, and copper. Fallout from automobile emissions is also a major source of lead in urban areas. A large fraction of trace metals in urban runoff is attached to sediment, and this effectively reduces the level that is immediately available for biological uptake and subsequent bioaccumulation. Metals associated with the sediment settle out and accumulate in soils. The toxicity of trace metals in runoff varies with the hardness of the receiving water. As total hardness of the water increases, the threshold concentration levels for adverse effects increases.

Oxygen-Demanding Substances. Aquatic life is dependent on the dissolved oxygen in the water. When organic matter is consumed by microorganisms, dissolved oxygen is consumed in the process. A rainfall

event can deposit large quantities of oxygen-demanding substances in receiving waters. The biochemical oxygen demand of typical urban runoff is comparable to effluent from an effective secondary wastewater treatment plant. A water quality problem can occur when the rate of oxygen-demanding material exceeds the rate of oxygen replenishment. Oxygen demand is estimated by direct measure of dissolved oxygen and indirect measures such as levels of biochemical oxygen demand, chemical oxygen demand, oils and greases, and total organic carbon.

Bacteria. Bacteria levels in undiluted urban runoff typically exceed public health standards for water-contact recreation. Total coliform counts typically exceed EPA water quality criteria at most sites in most rain events. Although the coliform bacteria that are detected may not be a direct health risk, they are often associated with human pathogens.

Oil and Grease. Runoff containing oil and grease typically contains a wide variety of hydrocarbons, some of which can be toxic to aquatic life in low concentrations. These materials initially float on water and create a rainbow-colored film. Hydrocarbons are quickly absorbed in sediment. The major source of hydrocarbons in urban runoff is leakage of crankcase oil and other lubricating agents from automobiles. Hydrocarbon levels are highest in the runoff from parking lots, roads, and service stations. Residential land uses generate less hydrocarbons; however, illegal disposal of waste oil into storm drains can be a local problem.

Other Toxic Chemicals. Pollutants generally related to hazardous wastes or toxic chemicals can be detected in storm water. Pollutant scans have been conducted in previous national studies of urban runoff, which evaluated the presence of over 120 toxic chemicals and compounds. Scans rarely revealed toxins that exceeded the current safety criteria. The urban runoff scans were primarily conducted in suburban areas not expected to have many sources of toxic pollutants (with the possible exception of illegally disposed or applied household hazardous waste). Measures of toxic pollutants in storm water include (1) phthalate (plasticizer compound), (2) phenols and creosols (wood preservatives), (3) pesticides/herbicides, (4) oils and greases, and (5) metals.

3.9.1.4 Hazards

Floodplains and Flooding

Flooding generally occurs when soil and vegetation cannot absorb excess rainwater or snowmelt, and water runs off the land in quantities that cannot be carried in stream channels or kept in natural ponds or man-made reservoirs. Periodic floods occur naturally on many rivers, forming areas known as floodplains. These river floods usually result from heavy rain, sometimes combined with melting snow, which causes the rivers to overflow their banks. A flood that rises and falls rapidly with little or no

advance warning is called a flash flood. Flash floods usually result from intense rainfall over a relatively small area.

Flooding occurs occasionally on streets and roads in urbanized areas where storm waters are diverted into manmade or artificial drainage systems. In urbanized areas with significant area of impervious surfaces, storm water is not able to permeate and percolate into the soil, and is diverted into a storm drainage system. In some areas, these drainage systems are occasionally overloaded with storm water drainage, or the drains become clogged with leaves and other debris, thereby impeding storm water drainage onto transportation facilities (i.e., roadways). The ability of the storm drainage system to accommodate water flows is also largely based on ground permeability and infrastructure capacity. In metropolitan areas, agencies responsible for maintaining and upgrading drainage facilities to accommodate volume are local cities and the counties.

Principal impacts of flooding include damage to permanent structures, relocation of non-stationary objects, loss of human life, and damage to infrastructure and soil conditions. After the initial damage from floodwaters, standing water often creates a secondary level of destruction, by ruining crops, further undermining and damaging infrastructure, and contaminating water wells. Debris flows are another hazard associated with flooding, when heavy soils and rocks slide down into a valley, threatening the infrastructure below.

100-Year Floodplain

The 100-Year floodplain denotes an area that has a one percent chance of being inundated during any particular 12-month period. The risk of this area being flooded in any given year is one percent but statistically the risk is almost 40 percent in any 50-year period. Floodplain zones are determined FEMA and used to create Flood Insurance Rate Maps (FIRMs).[2] These tools assist communities in mitigating flood hazards through land use planning. FEMA also outlines specific regulations for any construction located within a 100-year floodplain, whether residential, commercial, or industrial.

Seiche

A seiche is an oscillation of a body of water in an enclosed or semi enclosed basin, such as a reservoir, harbor, lake, or storage tank. Many examples of seiches can be found in Southern California, where water reservoirs have been constructed or developed by damming rivers. The seiches serve as a means of flood

2 FEMA. *Flood Insurance Rate Map (FIRM)*. Available online at: https://www.fema.gov/flood-insurance-rate-map-firm, accessed February 25, 2020.

control and a holding tank for drinking and agricultural water. The City of Moorpark does not include any reservoirs, harbors, or lakes.

Tsunami

Tsunamis are massive waves triggered by large earthquakes along fault lines near the ocean. Tsunamis have potential to crash and flood areas much further inland than regular ocean waves. Such inundation can cause severe damage to local infrastructure and even loss of life.

3.9.2 REGULATORY FRAMEWORK

3.9.2.1 Federal Regulations

Rivers and Harbors Appropriation Act of 1899, Section 10

Authorization from the United States Army Corps of Engineers (USACOE) must be obtained for construction of a structure in or over any navigable water of the U.S., pursuant to Section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 U.S. Code [USC] 403). Authorization is also needed for structures built near navigable water if they would affect the course, location, condition, or capacity of the water body, as through re-channelization, disposal of fill, and so forth.

Wild and Scenic Rivers Act of 1968 (WSRA)

The objective of the WSRA (Public Law 90–542), dated October 2, 1968, is the preservation of certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition. The WSRA provides permanent protection for some of the country's most outstanding free flowing rivers and prohibits federal support for actions such as the construction of dams or other harmful instream activities.

Clean Water Act of 1972, as amended (CWA)

The law was originally enacted as the Federal Water Pollution Control Act (FWPCA; Public Law 92–500) in 1948, but took on its modern form when completely rewritten in 1972 in an act entitled the Federal Water Pollution Control Act Amendments of 1972, now commonly known as the Clean Water Act. Major changes have subsequently been introduced via amendatory legislation including the Clean Water Act of 1977 and the Water Quality Act of 1987.

The Clean Water Act (CWA) is the primary federal law in the United States governing water pollution. Its objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters

by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands. It is one of the United States' first and most influential modern environmental laws. As with many other major U.S. federal environmental statutes, it is administered by the U.S. Environmental Protection Agency (EPA), in coordination with state governments. Its implementing regulations are codified at 40 C.F.R. Subchapters D, N, and O (Parts 100-140, 401-471, and 501-503).

Section 303(d)

Section 303(d) of the Federal CWA requires the SWRCB to list impaired water bodies and determine TMDLs of pollutants or other stressors that are contributing excessively to these impaired waters.

Section 401 – Water Quality Certification

Section 401 establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and regulating quality standards for surface waters. Under the CWA, the U.S. Environmental Protection Agency (U.S. EPA) has implemented pollution control programs such as setting wastewater standards for industries and surface waters.

Section 402

Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) permit process. In California, NPDES permitting authority is delegated to, and administered by the nine RWQCBs. Pursuant to Section 402, a discharge of any pollutant from a point source into navigable waters, are prohibited unless an NPDES permit is obtained. Point sources are discrete conveyances such as pipes or manmade ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

Section 402(p) establishes that, storm water permits are required for discharges from a municipal separate storm sewer system (MS4) serving a population of 100,000 or more. U.S. EPA defines an MS4 as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) owned or operated by a State (40 CFR 122.26(b)(8)).

The California Department of Transportation (Caltrans) is responsible for the design, construction, management, and maintenance of the State highway system, including freeways, bridges, tunnels, Caltrans' facilities, and related properties, and is subject to the permitting requirements of CWA Section

402(p). Caltrans' discharges consist of storm water and non-storm water discharges from state-owned rights-of-way.

Before July 1999, discharges from Caltrans' MS4 were regulated by individual NPDES permits issued by the RWQCBs. On July 15, 1999, the SWRCB issued a statewide permit (Order No. 99-06-DWQ) that regulated all discharges from Caltrans MS4s, maintenance facilities, and construction activities. On September 19, 2012, Caltrans' permit was reissued (Order No. 2012-0011-DWQ), and it became effective on July 1, 2013.

Caltrans' Storm Water Management Plan (SWMP) describes the procedures and practices used to reduce or eliminate the discharge of pollutants to storm drainage systems and receiving waters. The SWMP was most recently updated in July of 2016.

Section 404 – Discharge of Dredge or Fill Material

Section 404 of the federal CWA is administered and enforced by the U.S. Army Corps of Engineers (USACOE). Section 404 of the CWA establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. USACOE administers the day-to-day program, including the determination of eligibility of project for use of Categorical Exclusions and Nationwide Permits, and review and consideration of individual permit decisions and jurisdictional determinations. USACOE also develops policy and guidance; and enforces Section 404 provisions.

Executive Order 11990 - Protection of Wetlands

This executive order is an overall wetlands policy for all agencies managing federal lands, sponsoring federal projects, or providing federal funds to state or local projects. This executive order requires that when a construction project involves wetlands, a finding must be made by the federal agency that there is no practicable alternative to such construction, and that the proposed action includes all practicable measures to minimize impacts to wetlands resulting from such use.

Pollution Prevention Act of 1990

The Pollution Prevention Act (42 USC §13101 et seq.) focused on reducing the amount of pollution through cost-effective changes in production, operation, and raw materials. The Act focuses on source reduction which reduces the release of hazardous substances through practices that increase efficiency in energy, water, or other natural resources.

Antidegradation Policy

The Antidegradation Policy under U.S. EPA's Water Quality Standards Regulations (48 F.R. 51400, 40 CFR 131.12, November 8, 1983), requires states and tribes to establish a three-tiered antidegradation program to prevent a decrease in water quality standards.

- Tier 1—Maintains and protects existing uses and water quality conditions that support such uses. Tier 1 is applicable to all surface waters.

- Tier 2—Maintains and protects "high quality" waters where existing conditions are better than necessary to support "fishable/swimmable" waters. Water quality can be lowered in such waters but not to the point at which it would interfere with existing or designed uses.

- Tier 3—Maintains and protects water quality in outstanding national resource waters (ONRWs). Water quality cannot be lowered in such waters except for certain temporary changes.

Antidegradation was explicitly incorporated into the federal CWA through 1987 amendments, codified in section 303(d)(4)(B), requiring satisfaction of antidegradation requirements before making certain changes in NPDES permits.

Clean Water Rule: Definition of Waters of the United States (WOTUS Rule)

On June 29, 2015, the U.S. EPA and USACOE jointly published the final WOTUS Rule (40 CFR Parts 110, 112, 116, et al. and 33 CFR Part 328) for determining the extent to which wetlands and other water features are protected under the CWA. The original final rule:

- **Clearly defines and protects tributaries that impact the health of downstream waters.** The CWA protects navigable waterways and their tributaries. The rule says that a tributary must show physical features of flowing water—a bed, bank, and ordinary high water mark—to warrant protection. The rule provides protection for headwaters that have these features and science shows can have a significant connection to downstream waters.

- **Provides certainty in how far safeguards extend to nearby waters.** The rule protects waters that are next to rivers and lakes and their tributaries because science shows that they impact downstream waters. The rule sets boundaries on covering nearby waters for the first time that are physical and measurable.

- **Protects the nation's regional water treasures.** Science shows that specific water features can function as part of a system and impact the health of downstream waters. The rule protects prairie

potholes, Carolina and Delmarva bays, pocosins, western vernal pools in California, and Texas coastal prairie wetlands when they impact downstream waters.

- **Focuses on streams, not ditches.** The rule limits protection to ditches that are constructed out of streams or function like streams and can carry pollution downstream. So, ditches that are not constructed in streams and that flow only when it rains are not covered.

- **Maintains the status of waters within Municipal Separate Storm Sewer Systems.** The rule does not change how those waters are treated and encourages the use of green infrastructure.

- **Reduces the use of case-specific analysis of waters.** Previously, almost any water could be put through a lengthy case-specific analysis, even if it would not be subject to the Clean Water Act. The rule significantly limits the use of case-specific analysis by creating clarity and certainty on protected waters and limiting the number of similarly situated water features.

A CWA permit is only needed if a "water of the United States" is going to be polluted or destroyed. The Clean Water Rule only protects the types of waters that have historically been covered under the CWA. It does not regulate most ditches and does not regulate groundwater, shallow subsurface flows, or tile drains. It does not make changes to current policies on irrigation or water transfers or apply to erosion in a field. The Clean Water Rule addresses the pollution and destruction of waterways—not land use or private property rights.

States opposing the far-reaching impacts of the WOTUS rule challenged the validity of the rule in 13 states, and the fight has expanded nationwide. Attorney generals from 18 states filed a motion with the 6th Circuit Court of Appeals in Ohio in early September asking the court to place a stay on WOTUS, barring EPA from enforcing it for 50 days. The move came after U.S. District Court-District of North Dakota placed a stay on the WOTUS rule in the 13 states under its jurisdiction but, in a separate ruling, refused to expand the injunction nationwide. In February 2018, the EPA established an applicability date of February 2020 for the 2015 Rule defining WOTUS. The lack of clarity and timeliness has left many agencies confused and the 2015 Rule remains in effect in only 22 states, the District of Columbia, and the U.S. territories. Information is currently being updated on an ongoing basis.

National Flood Insurance Act

The U.S. Congress passed the National Flood Insurance Act in 1968 and the Flood Disaster Protection Act in 1973 to restrict certain types of development on floodplains and to provide for a NFIP. The purpose of these acts is to reduce the need for large, publicly-funded flood control structures and disaster relief. The NFIP is a federal program administered by the Flood Insurance Administration of FEMA. It enables

individuals who have property (a building or its contents) within the 100-year floodplain to purchase insurance against flood losses. FEMA works with the states and local communities to identify flood hazard areas and publishes a flood hazard boundary map of those areas. Floodplain mapping is an ongoing process in the Bay Area and flood maps must be regularly updated for both major rivers and tributaries as land uses and development patterns change.

Executive Order 11988, Flood Plain Management

The objective of Presidential Executive Order 11988, dated May 24, 1977, is the avoidance of, to the extent possible, long- and short-term adverse impacts associated with the occupancy and modification of the base floodplain (100-year floodplain) and the avoidance of direct and indirect support of development in the base floodplain wherever there is a practicable alternative. Under the Executive Order, the USACOE must provide leadership and take action to:

- Avoid development in the base floodplain unless it is the only practicable alternative,
- Reduce the hazard and risk associated with floods,
- Minimize the impact of floods to human safety, health, and welfare, and
- Restore and preserve the natural and beneficial values of the base floodplain.

3.9.2.2 State

Porter Cologne Water Quality Control Act

The Porter Cologne Water Quality Control Act of 1967 (Cal. Water Code Section 13000 et seq.), requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect State waters. These criteria include the identification of beneficial uses, narrative to the applicable and numerical water quality standards, and implementation procedures.

The Porter-Cologne Water Quality Control Act also authorizes the State Boards to adopt, review, and revise policies for all waters of the state (including both surface and ground waters) and directs the regional boards to develop Basin Plans. The act also authorizes State Boards to adopt Water Quality Control Plans. In the event of inconsistencies among state and regional board plans, the more stringent provisions apply.

Lake or Streambed Alteration

The California Department of Fish and Wildlife (CDFW) is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, Section 1600

of the California Fish and Game Code requires an entity to notify CDFW of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, state, or local government agency or public utility that proposes an activity that will:

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

The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. If CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. In August 2005, the California Fish and Game Commission policy regarding wetlands resources stated that "it is the policy of the Fish and Game Commission to seek to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California" and to "strongly discourage development in or conversion of wetlands."[3] As a result, although the Commission has no independent statutory permitting authority related to wetlands, the policy underscores that the Commission does not support wetland development proposals unless "project mitigation assures there will be 'no net loss' of either wetland habitat values or acreage" and "prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values." The Agreement includes reasonable conditions necessary to protect those resources and must comply with CEQA. The entity may proceed with the activity in accordance with the final Agreement.

Antidegradation Policy

California's antidegradation policy, formally known as the Statement of Policy with Respect to Maintaining High Quality Waters in California (SWRCB Resolution No. 68-16), restricts degradation of surface and ground waters. It protects waters where existing quality is higher than necessary for the protection of beneficial uses. Any actions with the potential to adversely affect water quality must 1) be

[3] California Fish and Game Commission. *Miscellaneous Policies: Wetlands Resources*. Available online at: http://www.fgc.ca.gov/policy/p4misc.aspx#WETLANDS, accessed December 17, 2018.

consistent with maximum benefit to the people of the State, 2) not unreasonably affect present and anticipated beneficial use of the water, and 3) not result in water quality less than that prescribed in water quality plans and policies. Any actions that can adversely affect surface waters are also subject to the federal antidegradation policy (40 CFR Section 131.12) developed under the CWA.

Sustainable Groundwater Management Act (SGMA)

On September 16, 2014 Governor Edmund G. Brown Jr. signed a three-bill package known as the Sustainable Groundwater Management Act. The legislation allows local agencies to customize groundwater sustainability plans to their regional economic and environmental needs. SGMA creates a framework for sustainable, local groundwater management for the first time in California history.

The three bills that make up SGMA are Assembly Bill (AB) 1739 by Assembly Member Roger Dickinson, Senate Bill (SB) 1319, and SB 1168 by Senator Fran Pavley.

In September 2015, Governor Brown signed SB 13, by Senator Fran Pavley. The Bill makes various technical, clarifying changes to SGMA including requirements for groundwater sustainability agency formation, the process for State Water Board intervention if no responsible agency is specified for a basin, guidelines for high- and medium-priority basins, and participation of mutual water companies in a groundwater sustainability agency.

Construction General Permit

The California Construction Stormwater Permit (Construction General Permit) 1, adopted by the SWRCB, regulates construction activities that include clearing, grading, and excavation resulting in soil disturbance of at least 1 acre of total land area. The Construction General Permit authorizes the discharge of stormwater to surface waters from construction activities. It prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges and all discharges that contain a hazardous substance in excess of reportable quantities established in Title 40, Sections 117.3 or 302.4 of the CFR, unless a separate NPDES permit has been issued to regulate those discharges. The Construction General Permit requires that all developers of land where construction activities will occur over more than 1 acre do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three Risk Levels established in the General Permit;
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the Nation;

- Develop and implement a stormwater pollution prevention plan (SWPPP), which specifies BMPs that will reduce pollution in stormwater discharges to the Best Available Technology Economically Achievable/ Best Conventional Pollutant Control Technology standards; and
- Perform inspections and maintenance of all BMPs.

To obtain coverage under the NPDES Construction General Permit, the Legally Responsible Person must electronically file all permit registration documents with the SWRCB before the start of construction. Permit registration documents must include:

- Notice of Intent,
- Risk Assessment,
- Site Map,
- SWPPP,
- Annual Fee, and
- Signed Certification Statement.

Typical BMPs contained in SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, control pollutants from construction materials, and address post construction runoff quantity (volume) and quality (treatment). The SWPPP must also include a discussion of the program to inspect and maintain all BMPs.

California Green Building Standards Code

Chapters 4 and 5 of the California Green Building Standards Code (CALGreen) include mandatory measures for residential and nonresidential development, respectively. Section 4.106.2 requires residential projects that disturb less than 1 acre and are not part of a larger common plan of development, manage stormwater drainage during construction through use of on-site retention basins, filtration systems where stormwater is conveyed to a public drainage system, and/or compliance with a stormwater management ordinance. Section 5.106.1 requires newly constructed nonresidential projects and additions of less than 1 acre to prevent the pollution of stormwater runoff because of construction through compliance with a local ordinance or implementing BMPs that address soil loss and good housekeeping to manage equipment, materials, and wastes.

California Department of Transportation NPDES Permit

The California Department of Transportation (Caltrans) was originally issued a statewide NPDES permit (Order 99-06-DWQ) in 1999, which requires Caltrans to regulate nonpoint source discharge from its properties, facilities, and activities. The Caltrans permit requires development of a program for communication with local agencies, and coordination with other MS4 programs where those programs overlap geographically with Caltrans facilities. As part of the permit, Caltrans is required to create and annually update a Stormwater Management Plan (SWMP) that is used to outline the regulation of pollutant discharge caused by current and future construction and maintenance activities. SWMP requirements apply to discharges from Caltrans stormwater conveyances, including catch basins and drain inlets, curbs, gutters, ditches, channels, and storm drains. The SWMP applies to discharges consisting of stormwater and non-stormwater resulting from the following:

- maintenance and operation of state-owned highways, freeways, and roads;
- maintenance facilities;
- other facilities with activities that have the potential for discharging pollutants;
- permanent discharges from subsurface dewatering;
- temporary dewatering; and
- construction activities.

The discharges addressed by the SWMP flow through municipal stormwater conveyance systems or flow directly to surface water bodies in the state. These surface water bodies include creeks, rivers, reservoirs, lakes, wetlands, lagoons, estuaries, bays, and the Pacific Ocean and tributaries.

This SWMP applies to the oversight of outside agencies' or non-Caltrans entities' (third parties) activities performed within Caltrans' MS4 to ensure compliance with stormwater regulations. Non-Caltrans activities include highway construction and road improvement projects, as well as residential use and business operations on leased property.

The SWMP must be approved by the SWRCB and, as specified in the permit, it is an enforceable document. Compliance with the permit is measured by implementation of the SWMP. Caltrans' policies, manuals, and other guidance related to stormwater are intended to facilitate implementation of the SWMP. Caltrans also requires all contractors to prepare and implement a program to control water pollution effectively during the construction of all projects.

In lieu of the more recently adopted General Construction Permit as described above, Caltrans continues to modify its current policies and procedures to be consistent with the new permit.

California Stormwater Quality Association Best Management Practices Handbooks

The California Stormwater Quality Association (CASQA) is a professional member association dedicated to the advancement of stormwater quality management through collaboration, education, implementation guidance, regulatory review, and scientific assessment. CASQA's membership is comprised of a diverse range of stormwater quality management organizations and individuals, including cities, counties, special districts, industries, and consulting firms throughout the state. CASQA develops and publishes four BMP Handbooks. The New Development and Redevelopment Handbook provides guidance on developing project-specific SWMPs, including selection and implementation of BMPs, for a particular development or redevelopment project.

Cobey-Alquist Floodplain Management Act

The Cobey-Alquist Floodplain Management Act (California Water Code 8400-8415) and Executive Order B-39-77 support the NFIP. The Act encourages local governments to plan, adopt, and enforce land use regulations for floodplain management, to protect people and property from flooding hazards. The Act also identifies requirements that jurisdictions must meet to receive State financial assistance for flood control. Executive Order B-39-77 requires state agency compliance with good floodplain management practices.

California Fish and Game Code

The California Department of Fish and Wildlife is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the Fish and Game Code (Section 1602) requires an entity to notify the Department of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, state or local government agency, or public utility that proposes an activity that will:

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

The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams, desert washes, and

watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

California Ocean Plan

The California Ocean Plan establishes water quality objectives for California's ocean waters and provides the basis for regulation of wastes discharged into the state's coastal waters. The plan applies to point and nonpoint source discharges. Both the SWRCB and the six coastal RWQCBs implement and interpret the California Ocean Plan. The California Ocean Plan identifies the applicable beneficial uses of marine waters. These beneficial uses include preservation and enhancement of designated Areas of Special Biological Significance (ASBS), rare and endangered species, marine habitat, fish migration, fish spawning, shellfish harvesting, recreation, commercial and sport fishing, mariculture, industrial water supply, aesthetic enjoyment, and navigation.

The California Ocean Plan establishes a set of narrative and numerical water quality objectives to protect beneficial uses. These objectives are based on bacterial, physical, chemical, and biological characteristics as well as radioactivity. The water quality objectives in Table 1 (formerly Table B) of the California Ocean Plan apply to all receiving waters under the jurisdiction of the plan and are established for the protection of aquatic life and for the protection of human health from both carcinogens and noncarcinogens. Within Table 1 there are 21 objectives for protecting aquatic life, 20 for protecting human health from noncarcinogens, and 42 for protecting human health from exposure to carcinogens. The Ocean Plan also includes an implementation program for achieving water quality objectives. Effluent limitations are established for the protection of marine waters.

3.9.2.3 Regional

Water Quality Control Plan for the Los Angeles Region

The RWQCB has prepared a Water Quality Control Plan for the Los Angeles Region. This basin plan encompasses all coastal drainages flowing to the Pacific Ocean between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line, as well as the drainages of five coastal islands (Anacapa, San Nicolas, Santa Barbara, Santa Catalina, and San Clemente). In addition, the Los Angeles region includes all coastal waters within three miles of the continental and island coastlines. As the eastern boundary, formed by the Los Angeles County line, departs somewhat from the hydrologic divide, the Los Angeles and Santa Ana regions share jurisdiction over watersheds along their common border.

Ventura County General Plan

The Ventura County General Plan provides specific goals and policies related to the inventory and monitoring of water quantity and quality to facilitate effective management of the resources. The Ventura County General Plan has identified ten specific programs to support achievement of the goals and policies. The programs include:

- Support of the Seawater Intrusion Abatement Project;
- Enforcement of Chapter 70 (Excavation and Grading) of the Uniform Building Code, as incorporated by reference in and amended by the Ventura County Building Code, to ensure that any proposed grading in a waterway or wetland is adequately investigated and that any development incorporates appropriate design provisions to protect waterways or wetlands;
- Support the Fox Canyon Groundwater Management Agency Plan for both the Upper and Lower Aquifer Systems;
- Continued coordination with water districts and other appropriate agencies to establish a data base on actual available supply, projected use factors for types of land use and development, and threshold limits for development within available water resources;
- Planning Division will continue to promote of the efficient use of water through the Landscape Design Criteria Program;
- Cooperation between the Public Works Agency and the Environmental Health Division, to pursue the use of reclaimed water for agricultural irrigation;
- Continued monitoring, inspection and regulation of underground storage tanks;
- Identification of waste disposal sites and seek to mitigate impacts to water resources; and consideration of the Board of Supervisors of a Countywide water conservation retrofit program to fund the installation of water conservation fixtures) for businesses and residents located within Ventura County.[4]

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4 City of Ventura. *Ventura General Plan*. Available online at: https://docs.vcrma.org/images/pdf/planning/plans /Goals-Policies-and-Programs.pdf, accessed August 27, 2019.

3.9.2.4 Local

City of Moorpark General Plan

The following goals and policies of the City of Moorpark General Plan are applicable to the proposed Project.

Land Use Element

Goal 14: Establish land uses and development intensities which are compatible with scenic and natural resources and which encourage environmental preservation.

Policy 14.3 New development shall not contribute to or cause hazardous conditions of any kind.

Goal 15: Maintain a high quality environment that contributes to and enhances the quality of life and protects public health, safety, and welfare.

Safety Element

Policy 4.1 Continue to participate in the Standardized Emergency Management System and the Ventura County Stormwater Program [local enforcer of the National Pollutant Discharge Elimination System (NPDES) program].

Goal 5: Reduce the risk to the community from hazards related to flooding.

Policy 5.2 Ensure that future projects include mitigation for hydrological impacts. Mitigation can include catch basins, stormwater pipelines, and detention basins.

Policy 5.3 Consider floodway management design that includes areas where stream courses are left natural or as developed open space.

Policy 5.4 Improve flood control structures, including modification of the Walnut Canyon and Gabbert Canyon debris basins, addition of new detention basins, channel reconstruction, and diversion systems.

Goal 7: Improve the ability of the City to respond effectively to natural and human-caused emergencies.

Policy 7.4 Insure that new critical facilities are not permitted in floodplains unless they are elevated above the projected inundation depths and/or otherwise protected.

Open Space, Conservation, and Recreation Element

Policy 3.2 The City shall support conservation and protection of groundwater aquifers and water quality through management programs established by the County of Ventura, the County of Ventura Waterworks District No. 1, the State Water Resources Control Board, the Calleguas and the Regional Water Quality Control Boards. The City shall participate in local efforts to implement regional Storm Water Pollution Prevention programs and the County's Water Conservation Plan. The City shall participate with any future regional water quality and water supply plans proposed by these agencies.

Ventura County Watershed Protection District

The City of Moorpark does not have its own design standards for drainage, as related to large developments like the Project. As such, the City defers to the County of Ventura drainage design manuals for guidance on storm drain design and construction. The *Ventura County Flood Control Design Manual* indicates that minor storm drain system and appurtenant structures that will not be under future jurisdiction of the VCWPD should be designed for the 10-year storm frequency. Channels and basins of regional significance that will be under VCWPD jurisdiction should be designed for the 100-year storm frequency. Typically, in jurisdictions where the storm drain design frequency is less than 100-year, there is an application of a combined design requirement with FEMA guidelines resulting in the ability to surcharge the streets and utilize the roadway section from storm conveyance. However, the development pad of existing and proposed structures must have a 1-foot minimum of freeboard to the 100-year frequency water surface.

3.9.3 THRESHOLDS OF SIGNIFICANCE

In accordance with *State CEQA Guidelines* (Appendix G), the following significance threshold criteria should be used to evaluate the potential hydrologic impacts of projects in the City. The project would have a significant impact related to hydrology if it would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;

- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

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

  - Result in substantial erosion or siltation on- or off-site;

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

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

  - Impede or redirect flood flows.

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.9.4 METHODOLOGY

The analysis of water quality impacts identifies the types of pollutants potentially associated with future development as a result of implementation of the Plan and considers their effects on water quality. Consideration is given to BMPs, which would serve to minimize pollutants in stormwater runoff. Further, the Plan's consistency with relevant regulatory permits/requirements is evaluated to demonstrate how compliance would protect water quality.

As summarized in Regulatory Framework, independent of the CEQA process, there is a comprehensive set of regulations implemented at the State and jurisdictional level to impacts related to storm drainage, urban pollutants, and flood hazards. As such, the analysis presented herein assumes future projects would comply with these regulations.

This discussion of hydrology focuses on the Project site and the surrounding areas downstream of the Project site. The impact analysis is based on several factors, including the degree to which existing land uses in the region would change and the thresholds of significance for hydrology and water quality.

3.9.5 PROJECT IMPACTS

The development plan for Hitch Ranch includes a total of four detention basins (refer to **Figure 2.0-3, Specific Plan Land Use Map**) making up approximately 18.21 acres, or approximately 7.2 percent of the Project site. Basins 2A (approximately 3.67 acres), and 2B (approximately 6.30 acres) will be north of North Hills Parkway, and the second regional basin (Basin 2 – approximately 5.94 acres) will be constructed in the arroyo adjacent to Gabbert Road and the Walnut Canyon Channel within the plan area. The last basin will serve as a water quality treatment basin (Lot AC – approximately 2.33 acres) and will be located on the southwestern side of the Project site. There will be four debris basins (DB1A [approximately 0.25 acre], DB1B [approximately 0.05 acre], DB2 [approximately 0.20 acre], and DB3 [approximately 0.15 acre]) located on the northern edge of the Project site within the manufactured slope areas. Refer to **Appendix 3.9-E, Hydrology Study Report 2020 Update**, for detailed information. An additional detention basin (Basin 3 – approximately 12.27 acres) would be included within the approximately 23.44-acre City Donation Parcel, along the southern edge of the parcel.

Impact HYD-1 **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.**

Less than Significant with Mitigation

Construction

Grading activities associated with the construction of the Project will temporarily increase the amount of suspended solids from surface flows derived from the Plan area during a concurrent storm event due to sheet erosion of exposed soil. Construction activities that disturb more than 1 acre require a NPDES permit to mitigate construction-related water quality impacts. In addition, during excavation and grading, contaminated soils may be exposed and/or disturbed. The exposure of contaminated soils could impact surface water quality through contact during storm events. The applicant is required to satisfy all applicable requirements of the NPDES Program. These requirements include preparation of a Storm Water Pollutant Prevention Plan (SWPPP) containing structural treatment and source control measures appropriate and applicable to the project. The SWPPP will incorporate BMPs by requiring controls of pollutant discharges that utilize best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT) to reduce pollutants.

Operation

The stormwater management elements and improvements which were used to form the on-site flood control system can be classified as either conveyance oriented or storage oriented. The proposed system is

composed of improved, stabilized, or restored creeks and streams; underground storm drain conduits (RCPs, RCBs, and culverts); water quality swales; debris basins; detention basins; water quality basins; and multiuse combined storage facilities. Where possible, the stormwater management system has been designed to make use of multiple-use facilities so as to result in the most economical stormwater management system while still achieving optimum performance with regard to flood control and water quality parameters. See **Appendix 3.9-E,** Hydrology Study Report – 2020 Update for the proposed stormwater management system components.

The Plan will convert approximately 277.30 acres of land from the existing undeveloped foothills and canyons with naturally occurring vegetation to a mix of multi-density residential uses, recreational uses, open space, and roadways. The proposed changes in land use will have an impact on the amount of stormwater runoff generated by the land and the amounts of pollutant carried in the runoff. Each type of land use generates characteristic amounts of each pollutant. The Plan consists of a mix of residential, recreational, and open space land uses. Therefore, the stormwater pollutants likely to be generated by the project are typical pollutants found in significant concentrations in stormwater. These pollutants of interest include total suspended solids (TSS), total phosphorus (TP), total nitrogen (TN), copper, lead, zinc, total petroleum hydrocarbons (TPH), oil, grease, and total dissolved solids.

The established NPDES Phase II Stormwater Program in effect for the Project site is in compliance with the mandates of NPDES Permit No. R4-2010-0108. The design and performance requirements of this permit are detailed in the Ventura Countywide Water Quality manual. The permit will require the use of best management practices (BMPs) in order to reduce the spread of the pollutants listed above. The specific performance and design details of each BMP will be described in detail in the project Post Construction Stormwater Management Plan (PCSMP) to be prepared by the applicant. The following discussion provides the parameters of the PCSMP for BMPs that the project may implement:

BMP Design

All BMPs for this project will be designed following the available *Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures* (2011) design standards for BMPs. The treatment runoff volume is calculated based on the treatment volume calculation guidelines provided in the Ventura Countywide Water Quality manual.

The manual provides graphs for the estimation of the stormwater volume that must be captured and treated to provide treatment of 80 percent of the annual runoff and equations for calculation of the stormwater quality design flow (SQDF) for flow-based BMPs. The *California Stormwater Quality Association Best Management Practices Design Manual for New Development and Redevelopment* (*CASQA*

Manual) provides design guidelines that are useful and commonly accepted for design of volume-based and flow-based BMPs. The *CASQA Manual* will be relied upon for design guidance when the design phases of this project are reached.

Infiltration Basin

The Los Angeles Regional Water Quality Control Board's (LARWCB) has established numeric sizing criteria for post-construction BMPs for new development within Ventura County and the incorporated cities under Order No. R4-2010-0108. The proposed numeric sizing criteria is intended to reduce adverse impacts to Los Angeles regional waters caused by new sources of urban pollution and increased volumes of storm water and non-storm water flows resulting from new development. The proposed water quality facilities will comply with the LARWCB water quality permit/order as follows:

1. Site Design Principles and Techniques are a stormwater management strategy that emphasizes conservation and use of existing site features to reduce the amount of runoff and pollutant loading that is generated from a project site.

2. Source Control Measures limit the exposure of materials and activities so that potential sources of pollutants are prevented from making contact with stormwater runoff.

3. Retention BMPs are stormwater BMPs that are designed to retain water onsite, and achieve a greater reduction in surface runoff from a project site than traditional stormwater Treatment Control Measures. The term "Retention BMPs" encompasses infiltration, rainwater harvesting, and evapotranspiration BMPs. Retention BMPs are preferred and shall be selected over biofiltration BMPs and Treatment Control Measures where technically feasible to do so.

4. Biofiltration BMPs are vegetated stormwater BMPs that remove pollutants by filtering stormwater through vegetation and soils.

5. Treatment Control Measures are engineered BMPs that provide a reduction of pollutant loads and concentrations in stormwater runoff.

Applicable projects (Section 1.4) must reduce Effective Impervious Area (EIA) to less than or equal to five percent (≤5%) of the total project area, unless infeasible. Impervious surfaces are rendered "ineffective" if the design storm volume is fully retained onsite using Retention BMPs. Biofiltration BMPs may be used to achieve the 5% EIA standard if Retention BMPs are technically infeasible.

Volumetric BMPs

The acreage of land that is tributary to each of the volumetric BMPs, such as extended detention basins, is calculated based on the site plan for the project. Runoff volume is based on proposed land uses in the watershed area. The volume of stormwater that must be captured to provide 80-percent annual capture is the "design storm" analyzed in this report. The volumetric BMP sizing calculation for basin-type BMPs requires a 48-hour (48 to 72 hour) drawdown time or treatment period for the BMP runoff volume. The proposed extended detention basins were preliminarily sized per Appendix B of the *Ventura Countywide Stormwater Quality Management Program* requirements.

Flow Based BMPs

The flow-rate-based BMPs, such as vegetated swales or water quality creeks, were preliminarily sized to treat 10 percent of the 50-year tributary peak flowrate per SQDF calculation detailed in Appendix E of the *Ventura Countywide Stormwater Quality Management Program* manual.

Stormwater Treatment BMPs

Stormwater BMPs are practices and facilities that are employed to reduce the level of pollutants that occur in stormwater. Stormwater BMPs typically include practices such as public education, proper site design, proper handling of chemicals, and stormwater facilities such as ponds and wetlands. Some BMPs are applied temporarily to a site during construction while others are incorporated as permanent features of the site. This report describes only the structural BMPs that will remain a part of the site following construction. Most of these are permanent parts of the stormwater drainage system while a few will remain in place only until certain later phases of the project are built. The Hitch Ranch PCSMP will describe the proposed BMPs for the project.

The Project will provide permanent stormwater treatment BMPs for runoff from all developed portions of the Project site in accordance with the project PCSMP to be prepared in the future. Several types of stormwater BMP will be used to meet this requirement including man-made basins, vegetated swale or water quality creek, dry extended detention ponds, and other BMPs.

The PCSMP will outline the design requirements, which all project BMPs including the permanent stormwater treatment BMPs described herein, will meet. Additional BMP design guidance is obtained from the *Ventura Countywide Stormwater Quality Management Program* manual and the *CASQA Manual*. In some cases, additional design guidance is obtained from other sources, but in all cases, BMPs are designed to meet or exceed the minimum standards that will be outlined in the PCSMP.

Dry Extended Detention Basin BMPs

Dry extended detention basins are among the most widely used stormwater treatment BMPs, they provide versatility, reliability, and are proven to work. A dry extended detention basin remains empty until a rainfall runoff event occurs. During the runoff event, water entering the basin is detained. This water is released through an engineered outlet structure over the course of approximately 40 to 72 hours. During this time, particulates and other pollutants are removed from the water in the basin by settling, infiltration, and absorption by soils.

In most cases, dry extended detention basins will be designed with gentle side slopes and shallow water depths (when full) for the public's safety and eliminate the need for fencing.

In areas where dry weather flows are anticipated, dry extended detention basins will be equipped with either a permanent micropool or subsurface flow wetland to control dry weather flows. A micropool is a small pool of water typically designed to provide 24 hours of detention for anticipated nuisance flows. The micropool is located in the floor of the dry extended detention basin. Micropools are equipped with small overflow outlets that are intended to prevent water from overtopping the micropool during dry weather. A subsurface-flow wetland is a gravel bed constructed in the floor of a dry extended detention basin or similar facility. Small flows of water entering the basin during dry weather will quickly infiltrate the gravel bed, thereby eliminating surface puddling that can support mosquito reproduction. Water is treated through contact with the gravel and microbes growing on the gravel, settling, filtration, and infiltration. The wetland is sized to provide 24 hours of detention for nuisance flows, and includes an overflow outlet to release excess water before any surface puddling occurs. During wet weather, the subsurface flow wetland provides an alternate low-flow outlet for storm water.

BMP Safety Standards

Water Body Safety Standards

All facilities, which permanently or temporarily can contain a pool of water in excess of 18 inches deep, will be designed to meet safety criteria or fencing will be provided to limit public access to the water's edge. The following safety criteria apply to water bodies:

1. All water basins (water quality, detention, debris) that are not designed for multiple uses with an active use such as soccer/football fields, baseball/softball fields, golf, etc., and have side slopes above and/or below the water surface steeper than 4:1 (H:V) are to be fenced with a minimum 6-foot fence to reduce the likelihood of attractive nuisance accidents associated with children.

2. Side slopes above water level shall be 4:1 (H:V) or flatter (e.g. 5:1).

3. Water depth at water's edge shall be no deeper than 18 inches.

4. Bottom slope (underwater ground slope) shall not exceed 4:1 until water depth exceeds 4 feet.

These conditions provide a safe edge condition that prevents a person from falling into deep water and allows easy egress for anyone who accidentally enters the water. The gentle but distinctly sloping bottom allows anyone who wades into the water to be aware that the water is deeper farther from shore while allowing easy retreat. No water body with public access can be designed to prevent a determined person from entering the water, but the application of these safety principles ensure that the public can remain relatively safe while still enjoying the many benefits of publicly accessible waterways.

Vector Control

Stormwater facilities, like all facilities that contain water, may attract mosquitoes, which may reproduce. Mosquito larvae require standing water to develop. Typically, very shallow, standing water free of predators is required, and water high in nutrients is preferred by most nuisance mosquito species. A period of approximately eight days is required for a mosquito to hatch from an egg, develop through the larval and pupae stages and emerge as an adult during warm weather. During colder weather, maturation takes longer. Standing water that persists longer than a few days thus runs the risk of producing mosquitoes.

The stormwater facilities on the Project site will be designed either to prevent standing water from persisting more than 72 hours, or to permanently hold standing water. Any temporary water that drains within 72 hours will not produce mosquitoes, and the 72-hour drain time helps minimize the risk that sequential storms will combine to create standing water that lasts more than the approximately eight days required for a mosquito to mature under ideal conditions. Alternately, facilities with permanent areas of water can be stocked with mosquito fish or other predators of mosquito larvae that effectively prevent reproduction.

Additional vector control measures that should be incorporated into the design of storm water facilities include:

1. Where permanent bodies of water are planned, the edge slopes at the normal operating water surface elevation must be as steep as possible to a depth of 12 inches below water surface to limit the area of very shallow water along the edge that can support mosquitoes. A vertical edge provides the best limitation to shallow water at the edge.

2. Areas of emergent vegetation will be designed with water depth in excess of 12 inches where possible to eliminate very shallow water that is inaccessible to predators such as fish.

3. In areas where dry weather flows are anticipated include features designed to eliminate puddling of water during dry weather conditions.

Conclusion

The project is constructing three detention and one combination detention/debris basins for the purpose of capturing runoff and will be required to implement BMPs consistent with water discharge requirements, as discussed above. In order to ensure that the project reduces the impact posed to surface and groundwater during project construction or operation, **Mitigation Measures HYD-1** through **HYD-5** will be implemented. With implementation of these measures, the impact will be less than significant.

Impact HYD-2 **Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.**

Less than Significant with Mitigation

According to the Public Policy Institute of California, groundwater overdraft in some agricultural regions averages about 2 million acre-feet annually.[5] In contrast to surface water, groundwater use has largely been unregulated under California law until recently. Many basins have experienced long-term overdraft, and 21 of the state's 515 basins are now considered critically over drafted, including the Santa Clara River Valley and Pleasant Valley basins within Ventura County.

Under natural conditions, vegetation intercepts and retains rainfall before infiltration or runoff occurs. Without hard-surfaced land areas, this hydrology cycle favors groundwater recharge. The project will develop 755 residential units and supporting roadways over approximately 47% of the site, which will increase the total area of impervious surfaces. Hard surfaces significantly decrease groundwater recharge. The magnitude of this effect is reported by studies indicating that the volume of storm water washed off one-acre of roadway is about sixteen times greater than that of a comparably sized meadow. Therefore, the increase in impervious surfaces due to project build out has the potential to affect groundwater recharge rates. The project will implement BMPs and **Mitigation Measure HYD-3** that will support infiltration, or other treatment methods (i.e., biofiltration) will be implemented, in order to treat

5 The Public Policy Institute. 2017. *Just the Facts. Groundwater in California.* May. Available online at: https://www.ppic.org/wp-content/uploads/JTF_GroundwaterJTF.pdf, accessed August 14, 2019.

stormwater, which in turn will increase the recharge to groundwater recharge. Therefore, while the project will increase the amount of impervious surfaces, the site will still retain a high percentage of open space, and includes measures through BMPs and mitigation in an effort to increase groundwater recharge, as a result, the impact is less than significant with the implementation of mitigation.

Impact HYD-3a **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.**

Less than Significant with Mitigation

Stormwater runoff is influenced by rainfall intensity, ground surface permeability, watershed size and shape, and physical barriers. The introduction of impervious surfaces greatly reduces natural infiltration, allowing for a greater volume of runoff. In addition, paved surfaces and drainage conduits can accelerate the velocity of runoff, concentrating peak flows in downstream areas faster than under natural conditions. Significant increases to runoff and peak flow can overwhelm drainage systems and alter flood elevations in downstream locations.

Construction

Construction and earth-moving activities can be a major source of sediment loading in local waterways. There is significant potential for unprotected soil to erode as stormwater runoff as a result of construction activity. However, state regulation requires that prior to commencement of construction, a SWPPP must be submitted to the SWRCB. SWPPPs identify BMPs used during construction. Development of individual aspects of the Plan will include adopted BMPs appropriate to local conditions and to the proposed construction techniques that will reduce stormwater runoff, these BMPs are discussed under **Impact HYD-1** and implemented in **Mitigation Measure HYD-1** and **HYD-4.**

Operation

In February 2020, Kasraie Consulting prepared the *Hitch Ranch Hydrology Study Report 2020 Update* (refer to Appendix 3.9-E) in order to demonstrate that the Project provides appropriate mitigation measures to meet objectives outlines in the previous Regional Master Plan (2005 Technical Addendum to Walnut and Gabbert Canyon Channel Flood Deficiency Study) through updated hydrologic analysis of the Walnut Canyon watershed. Modeling was completed using VCRAT (Ventura County Rational Method Hydrology Model, version 2.64.0.37) for the 10-year/100-year existing site and 100-year interim/ultimate conditions. The report also includes an initial hydraulic evaluation of the existing and proposed

conditions in order to determine the overall benefit of the proposed system versus existing conditions and to ensure/verify that the proposed system will likely work as intended.

Within the report, an evaluation of the debris production was calculated per VCWPD requirements[6] in order to determine if the five proposed debris basins (DB1A, DB1B, DB2, DB3, and Basin 2B) would be adequate in a 100-year flooding event. For detention basins with tributary watersheds totaling less than five square miles, the volume required for debris storage is 125 percent of the debris volume expected from the 100-year storm. The project includes five debris basins that are anticipated to be adequate to support the sediment yield of a 100-year flood event. Moreover, the proposed facilities, including the detention basins, provide a significant benefit to the overall systems. Under existing conditions, there is a significant amount of flow overtopping the Union Pacific Railroad tracks immediately upstream of Gabbert Road, which could impact the industrial/commercial area to the south. This issue will be completely eliminated under the Interim and Ultimate Conditions.

Therefore, while the project will increase the amount of impervious surfaces on the Project site, the drainage pattern will not be altered in such a way to result in substantial siltation on or off-site. Moreover, the site will still maintain approximately 51% of open space, recreational space, and detention basins, therefore the amount of impervious surface will be limited. **Mitigation Measures HYD-1** to **HYD-4** will implement water quality, erosion control, and BMPs in order to reduce this impact to less than significant levels.

Impact HYD-3b **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of flooding on- or off-site.**

Less than Significant with Mitigation

As discussed in **Impact HYD-3a**, the Project will increase the amount of impervious surface on the Project site which may alter the drainage pattern of the site and lead to flooding. In order to address any potential for flooding, the Plan includes the construction of four (4) of the basins (Basins 2, 2A, 2B, and 3) identified in the approved master plan for this watershed. These facilities will help decrease the flooding risk downstream of the site. These facilities will also mitigate the increase in peak runoff that typically occurs in a watershed due to development.

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6 Scott and Williams, 1974. "Erosion and Sediment Yields in the Mountain Watersheds of the Transverse Ranges, Ventura and Los Angeles Counties, California—Analysis of Rates and Processes".

Construction

The project will be constructed in several phases over approximately 60 months. When all phases are complete, a single interconnected stormwater system will exist. In the interim, the portions of the permanent stormwater system within each phase will be constructed to function in combination with temporary facilities.

All phases will be designed to be fully or mostly self-contained in terms of stormwater treatment capacity. Thus, the land area within each phase will drain toward stormwater BMPs located within the phase, and the BMPs will be sized to treat the flows for the phase. Limited exceptions to this rule may be permitted for areas very near the downstream edge of a phase. For some of these areas, designing the storm drain system to drain back into the phase would require a cumbersome design that would be undesirable for the permanent condition. In these cases temporary stormwater treatment BMPs will be constructed outside the phase boundaries to provide the necessary stormwater treatment. These BMPs will be designed to the same standards as permanent BMPs.

In all phases that are not adjacent to the downstream boundary (Walnut Canyon Channel) of the Project site, temporary facilities to convey stormwater across the unbuilt phases and to detain stormwater to control downstream discharges will be needed. Temporary facilities will be constructed to perform these functions. Temporary facilities will meet the same safety and design standards as permanent facilities, but where feasible will omit concrete, basin linings, and permanent recreational improvements to minimize the costs of rebuilding or removing the facilities.

Operation

The project will be designed to limit downstream discharges to predevelopment levels. This will necessitate the temporary detention of floodwater. Because flood control basins are only infrequently filled with water, they lend themselves to multiple uses. Recreational fields, parks, wildlife habitat, and similar uses may be incorporated into detention basins on the Project site. The detention basins would be designed and constructed to meet or exceed minimum VCWPD design standards. The proposed regional basins would meet the performance and design requirements set forth in the Regional Watershed Master Plan for Walnut and Gabbert Canyons, which were approved and accepted by both the City of Moorpark and VCWPD in 2006.[7]

7 *Gabbert and Walnut Canyon Channels Flood Control Deficiency - Addendum,* dated August 2005.

As stated in **Impact HYD-3a**, *Hitch Ranch Hydrology Study Report 2020 Update* includes an initial hydraulic evaluation of the existing and proposed conditions in order to determine the overall benefit of the proposed system versus existing conditions and to ensure/verify that the proposed system will likely work as intended. The report concludes that the proposed facilities provide a significant benefit to the overall systems. Under existing conditions, there is a significant amount of flow overtopping the Union Pacific Railroad tracks immediately upstream of Gabbert Road, which could impact the industrial/commercial area to the south. This issue will be eliminated under the Interim and Ultimate Conditions, see **Appendix 3.9-E,** Hitch Ranch Hydrology Report – 2020 Update. Therefore, while the project will increase the amount of impervious surfaces on the Project site, with the implementation of **Mitigation Measures HYD-1** to **HYD-4** the drainage pattern will not be altered in such a way to substantially increase the rate or amount of flooding on- or off-site, and impacts will be less than significant.

Impact HYD-3c **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.**

Impact HYD-3d **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows.**

Less than Significant with Mitigation

As discussed in **Impact HYD-3a**, the Project will increase the amount of impervious surface on the Project site which may alter the drainage pattern of the site. However, the project will include BMPs and mitigation to store and treat runoff in order to prevent the pollution of surface and ground water. BMP's to address polluted runoff are discussed in **Impact HYD-1** and include infiltration basins, and extended detention basins to reduce runoff through infiltration, rainwater harvesting, and evapotranspiration. Additionally, **Impact HYD-1** identifies BMPs practices aimed at reducing polluted runoff through treatment controls and bioinfiltration basins. While the Project will increase the amount of impervious surfaces on the Project site, the drainage pattern will not be altered in such a way to substantially increase pollution runoff, or impede or redirect flood flows with the implementation of the BMPs. **Mitigation Measures HYD-1** to **HYD-4** will implement water quality, erosion control, and BMPs to reduce these impacts to less than significant levels.

Impact HYD-4 **In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.**

Less than Significant

The California Department of Conservation prepares Tsunami Inundation Maps for coastline areas within Ventura County. Review of the Project site demonstrates that it is approximately 16.5 miles from the coastline and, as a result, far outside the inundation zone identified in these maps. Therefore, the risk of pollutants being released from tsunami inundation is less than significant.

The Project site is susceptible to impacts from seismic activity. Review of surrounding areas demonstrates that the closest body of water is Bard Lake (also known as the Wood Ranch Reservoir), a 231-acre reservoir. The Project site is approximately 4.5 miles northwest from Bard Lake. Therefore, the risk from a seiche affecting the Project site is minimal and the impact is less than significant.

With regard to flooding, risks are associated with projects that are located in low-lying areas or in proximity to waterways and/or dam inundation zones. However, as stated above, the plan is anticipated to develop four detention basins (Basins 2, 2A, 2B, and 3), which will decrease the risk of flood on and off-site. Review of the *Hitch Ranch Hydrology Study Report - 2020 Update* demonstrates that the detention basins and the designated diversions will provide flow attenuation and time to peak lag which prevent 100-year flows from accumulating beyond the capacity of the downstream system. In addition, proposed Interim Condition 100-year flows are below 10-year existing flows along the Walnut Canyon Channel and, therefore, will meet the regional flood control objectives and local flood requirements from the Regional Management Plan are met with the flood design. As a result, the impact is less than significant.

Impact HYD-5 **Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.**

Less than Significant with Mitigation

The Project site is located within the Los Angeles Regional Water Quality Control Board (Region 4). The RWQCB is responsible for the protection of the beneficial uses of waters within each region. In general, the RWQCB uses its planning, permitting, and enforcement authority to meet this responsibility and adopts a Water Quality Control Plan (basin plan) to implement plans, policies, and provisions for water quality management, see **Section 3.9.2.3 Regional Regulations**. The Los Angeles Regional Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan (i) designates beneficial uses for surface and ground waters; (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated

beneficial uses and conform to the state's antidegradation policy, and (iii) describes implementation programs to protect all waters in the Region.

As discussed under **Impact HYD-2**, development of the project would increase impervious surfaces due to the construction of 755 residential units over previously undeveloped land. An increase in impervious surfaces would increase water runoff and potentially affect groundwater recharge rates and water quality in the basins. However, the project will implement BMPs, as described in **Impact HYD-1**, in an effort to reduce water runoff, increase groundwater recharge, and maintain water quality. The project will include permanent facilities that will treat stormwater before it is released from the site. The BMPs recommended include wet ponds, extended detention basins, vegetated swales, or water quality creeks, and vegetated buffer strips. Runoff from the Project site will flow through standard stormwater infrastructure (curbs, gutters, and underground pipes) into BMPs where it will be treated. After passing through BMPs runoff is discharged from the project.

The Plan is proposed to include extended detention basins as the primary stormwater treatment BMPs. The primary stormwater treatment BMPs will be located in Lot AC. The BMPs will include bioinfiltration and/or biofiltration. Therefore, all stormwater runoff leaving a developed portion of the site will pass through a BMP before being discharged to the downstream channel. The *Hydrology Study Report – 2020 Update* concluded that the plan would not have any significant hydrologic effect on the flood control and water quality system proposed for the Hitch Ranch Specific Plan. Therefore, **Mitigation Measures HYD-1** to **HYD-4** will implement water quality, erosion control, and BMPs to reduce this impact to less than significant levels.

3.9.6 GENRAL PLAN COSISTANCY

The proposed Hitch Ranch Specific Plan project incorporates and/or would be required to provide adequate detention facilities in order to prevent impacts to on-site or off-site storm water runoff and water quality. Implementation of the Specific Plan project is also mandated to comply with all applicable federal, state, and local water quality programs, including the Ventura County Stormwater Program. The published Flood Insurance Rate Maps for the Specific Plan site indicate that there are no existing flood hazards within the boundaries. The project is, therefore, consistent with the applicable goals and policies of the *Moorpark General Plan* Land Use Element; Safety Element; and Open Space, Conservation, and Recreation Element.

3.9.7 CUMULATIVE IMPACTS

3.9.7.1 Surface Water Hydrology

The geographic context for the cumulative impact analysis on surface water hydrology is the Walnut Canyon Watershed. The project, in conjunction with the cumulative growth in the Walnut Canyon Watershed (inclusive of the related projects), would cumulatively increase stormwater runoff flows potentially resulting in cumulative impacts to surface water hydrology. However, as described above, in accordance with City requirements, related projects and other future development projects would be required to implement BMPs, such that post-development peak stormwater runoff discharge rates would not exceed the estimated pre-development rates. Furthermore, VCWPD, and the City of Moorpark Department of Public Works would review each future development project on a case-by-case basis to ensure sufficient local and regional drainage capacity is available to accommodate stormwater runoff Therefore, cumulative impacts on surface water would be less than significant.

3.9.7.2 Surface Water Quality

The geographic context for the cumulative impact analysis on surface water quality is the Walnut Canyon Watershed. As with the project, cumulative growth in the Walnut Canyon Watershed (including related projects) would be subject to NPDES requirements regarding water quality for both construction and operation. In addition, it is anticipated that the related projects and other future development projects would also be subject to VCWPD, SWPPP, and PCSMP requirements and implementation of measures to comply with total maximum daily loads. Additionally, with implementation of the Plan, new BMPs for the treatment of stormwater runoff would be installed, thus improving the surface water quality runoff from the Project site compared to existing conditions. Therefore, with compliance with all applicable laws, rules and regulations, cumulative Impacts to surface water quality would be less than significant.

3.9.7.3 Groundwater Hydrology

Cumulative groundwater hydrology impacts could result from the overall utilization of groundwater basins located in proximity to the Project Site and the related projects. Groundwater basins in Ventura County are managed by Fox Canyon Groundwater Management Agency (FCGMA); the cumulative utilization of groundwater in the region, either as a result of water extraction under the related project or extraction to accommodate the related projects could also adversely affect local and regional groundwater hydrology, including groundwater levels. However, no water supply wells, spreading grounds, or injection wells are located within a 1-mile radius of the Project site. In addition, Plan development would not involve the permanent extraction of groundwater from the site.

Similar to the Plan, development of the related projects could result in changes in impervious surface area within their respective project sites. However, it is anticipated that the related projects, all subject to VCWPD and City of Moorpark approval, would also include measures through BMPs and mitigation in an effort to increase groundwater recharge, as a result, the cumulative impacts to groundwater would be less than significant.

3.9.7.4 Groundwater Quality

As described above, compliance with all applicable existing regulations would prevent the Project from affecting or expanding any potential areas affected by contamination, increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations, Title 22, Division 4, Chapter 16 and the Safe Drinking Water Act. As with the Project, the related projects would be unlikely to cause or increase groundwater contamination because compliance with existing statutes and regulations, and project reviews by VCWPD and the City of Moorpark would prevent the related projects from affecting or expanding any potential areas affected by contamination, or increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated. Therefore, cumulative impacts to groundwater quality would be less than significant.

3.9.8 MITIGATION PROGRAM

3.9.8.1 Project Design Features

The project design incorporates five on-site detention basins (2, 2A, 2B, Lot AC and Basin 3) with a total acreage of approximately 30.51 acres.

3.9.8.2 Standard Conditions and Requirements

Prior to the issuance of a grading permit, as well as during grading, the project would be required to comply with the requirements of Ventura County NPDES permit No. CAS004002, Order No. R4-2009-0057.

3.9.8.3 Mitigation Measures

Water Quality and Erosion Control

HYD-1: During site preparation and construction, the contractor shall minimize disturbance of natural groundcover on the Project site until such activity is required for grading and construction purposes. During grading operations, the developer shall employ a full-time

superintendent for National Pollutant Discharge Elimination System (NPDES) compliance. If determined necessary by the City Engineer/Public Works Director, the NPDES superintendent shall be present on the Project site Monday through Friday and on all other days when the probability of rain is 50 percent or higher and prior to the start of and during all grading or clearing operations until the release of grading bonds. The NPDES superintendent shall have full authority to hire personnel, bind the developer in contracts, rent equipment, and purchase materials to the extent needed to effectuate Best Management Practices (BMPs). The NPDES superintendent shall provide proof to the City Engineer/Public Works Director of attendance and satisfactory completion of courses satisfactory to the City Engineer/Public Works Director totaling no less than 8 hours directed specifically to NPDES compliance and effective use of BMPs. Proof of such attendance and completion shall be provided to the City Engineer/Public Works Director prior to employment of the NPDES superintendent.

Timing/Implementation: During site preparation and construction

Enforcement/Monitoring: City of Moorpark Public Works Department

HYD-2: Prior to issuance of the initial grading permit, the applicant shall have prepared a Post Construction Stormwater Management Plan (PCSMP) and include Non-Structural, Source Control, and Structural Best Management Practices (BMPs). A certified erosion and sediment control professional or qualified civil engineer shall prepare the PCSMP. The PCSMP shall be reviewed and approved by the Moorpark Community Development Director and City Engineer/Public Works Director. The development of the PCSMP shall conform to the Ventura County National Pollutant Discharge Elimination System permit, the PCSMP standards, and the Technical Guidance Manual for Storm Water Quality Control Measures. The following are the minimum required mitigation from the *Technical Guidance Manual for Storm Water Quality Control Measures*.

The PCSMP portion of the drainage master plan shall address:

- Storm Drain Message and Signage. The appropriate locations for the signage regarding discharge prohibitions at storm drain inlets and a standard message to be used throughout the specific plan site.

- Outdoor Material Storage Area Design. General design criteria for outdoor material storage area design.

- Outdoor Trash Storage and Waste Handling Area Design. General design criteria for outdoor trash storage and waste handling area design.
- Outdoor Loading/Unloading Dock Area Design. General design criteria for outdoor loading/unloading dock area design.
- Outdoor Repair/Maintenance Bay Design. General design criteria for outdoor repair and maintenance bay design.
- Outdoor Vehicle/Equipment/Accessory Washing Area Design. General design criteria for outdoor vehicle, equipment, and accessory washing area design.
- Fueling Area Design. General design criteria for fueling area design.
- Proof of Control Measure Maintenance. To ensure that maintenance is provided, the City of Moorpark Public Works Department (PWD) will require a maintenance agreement and a maintenance plan, including an Storm Water Operations and Maintenance Manual (O&M Manual), from the owner/operator of the storm water control measures. The PCSMP and O&M Manual shall identify the party(ies) responsible for maintenance of control measures, and shall be submitted to the PDW for review and acceptance. A Stormwater O&M Covenant shall be recorded for the property.

Timing/Implementation: Prior to grading permit issuance

Enforcement/Monitoring: City of Moorpark Public Works Department

Structural/Treatment BMPs

HYD-3: The PCSMP/O&M Manual shall include structural and/or treatment BMPs. The structural BMPs shall focus on meeting potential TMDL and pollutant standards for residential developments. The treatment BMPs shall conform to the *Technical Guidance Manual for Storm Water Control Measures***.** The PCSMP guidelines contained in the *National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements* for Ventura County state that structural BMPs are required for all new developments. The structural BMPs shall be sized to comply with one of the following numeric sizing criteria, unless an alternative is considered by the permittees to provide equivalent or better treatment. Groundwater quality must be evaluated based on the amount of water

and the potential pollutants that may be introduced associated with the buildout of the specific plan site.

Volume (SQDV) shall be calculated using the following four allowable methodologies:

a. The 85th percentile 24-hour runoff event determined as the maximized capture stormwater volume for the area using a 48 to 72-hour draw down time, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998); or

b. The volume of annual runoff based on unit basin storage water quality volume to achieve 80 percent or more volume treatment; or

c. The volume of runoff produced from a 0.75 inch storm event; or

d. Eighty (80) percent of the average annual runoff volume using an appropriate public domain continuous flow model [such as Storm Water Management Model (SWMM) or Hydrologic Engineering Center – Hydrologic Simulation Program – Fortran (HEC-HSPF)], using the local rainfall record and relevant BMP sizing and design data.

Volume-based BMPs shall be designed to infiltrate or treat either:

a. The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in the *California Storm Water Best Management Practices Handbook–Industrial/ Commercial* (1993), the *Ventura Countywide Storm Water Quality Management Program Land Development Guidelines***;** or

b. The 85th percentile 24-hour runoff event determined as the maximized capture storm water volume for the area, from the formula recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998)***;** or

c. The volume of runoff produced for a 0.75-inch storm event, prior to its discharge to a storm water conveyance system; or

d. The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for "treatment" that achieves approximately reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event. The volume of runoff

produced from the 85th percentile 24-hour storm event, as determined from the local historical rainfall record.

Flow-based BMPs shall be designed to infiltrate or treat either

a. Ten percent of the 50-year design flow rate, or

b. A flow that will result in treatment of the same portion of runoff as treated using volumetric standards, or

c. A rain event equal to at least 0.2 inch per hour intensity; or

d. A rain event equal to at least two times the 85th percentile hourly rainfall intensity for Ventura County.

The *Technical Guidance Manual for Storm Water Quality Control Measures* requires that treatment controls measures be used for any new development. The following is a partial list of treatment control measures that may be used by the applicant:

- Grass Strip Filter
- Grass Swale Filter
- Extended Detention Basin
- Wet Detention Basin
- Constructed Wetland
- Detention Basin/Sand Filter
- Porous Pavement Detention
- Porous Landscape Detention
- Infiltration Basin
- Infiltration Trench

The following discussion identifies treatment control measures that are appropriate for use on the Hitch Ranch Specific Plan site:

- Grass Strip and Swales. An appropriate treatment is either vegetative swales, enhanced vegetated swales utilizing check dams and wide depressions, a series of small detention facilities designed similarly to a dry detention basin, or a combination of these treatment methods into a treatment train (a series of Structural

BMPs). It is essential that the PCSMP address treatment for Hitch Ranch to assure that the runoff from the site be treated to the "maximum extent practicable."

In order for the vegetation swales to be effective in the removal of potential pollutants, the swales must be treated as water quality features and must be maintained differently than grass areas. Specifically, pesticides, herbicides, and fertilizers, which may be used on the grass areas, must not be used in the vegetation swales. Anticoagulant rodenticides are not to be used in any areas within the project.

- Infiltration Trenches and Basins. Infiltration trenches and/or basins may be used on site to meet potential future TMDLs for noxious aquatic plants and nutrients. Infiltration trenches and basins treat storm water runoff through filtration. A typical infiltration trench is essentially an excavated trench, which is lined with filter fabric and backfilled with stones. Depth of the infiltration trench ranges from 3 to 8 feet and functions best in areas with permeable soils, and water table and bedrock depth situated well below the bottom of the trench. Trenches should not be used to trap coarse sediments, because large sediment will likely clog the trench. Grass buffers can be installed to capture sediment before it enters the trench to minimize clogging. Infiltration basins are generally used for drainage areas between 5 and 50 acres. Infiltration basins can be either in-line or off-line, and may treat different volumes such as the water quality volume or the 2-year or 10-year storm.

- All structural BMPs shall be included in the Storm Water O&M Manual.

Timing/Implementation: Prior to building permit issuance

Enforcement/Monitoring: City of Moorpark Public Works Departments

HYD-4: Prior to the issuance of the first grading permit and as a part of the project's compliance with the National Pollutant Discharge Elimination System (NPDES) program, the applicant shall file a Notice of Intent (NOI) with the California State Water Resources Control Board providing notification and intent to comply with the State of California general permit. Prior to issuance of the first grading permit, a Storm Water Pollution Prevention Plan (SWPPP) must be completed for on-site and associated off-site construction activities. A copy of the SWPPP must be available and implemented at the construction site at all times. The SWPPP outlines the source control and/or treatment control best management practices (BMPs) that will avoid or mitigate runoff pollutants at the construction site to the "maximum extent practicable." A listing of these BMPs from

the *California Storm Water Best Management Practice Handbook-Construction Activity* is provided below.

- Dewatering Operations. This operation requires the use of sediment controls to prevent or reduce the discharge of pollutant to storm water from dewatering operations.

- Paving Operations. Prevent or reduce the runoff of pollutant from paving operations by proper storage of materials, protecting storm drain facilities during construction, and training employees.

- Structural Construction and Painting. Keep site and area clean and orderly, use erosion control, use proper storage facilities, use safe products, and train employees to prevent and reduce pollutant discharge to storm water facilities from construction and painting.

- Material Delivery and Storage. Minimize the storage of hazardous materials on the site. If stored on site, keep in designated areas, install secondary containment, conduct regular inspections, and train employees.

- Material Use. Prevent and reduce the discharge of pesticides, herbicides, fertilizers, detergents, plaster, petroleum products, and other hazardous materials from entering the storm water.

- Solid Waste Management. This BMP describes the requirements to properly design and maintain trash storage areas. The primary design feature requires the storage of trash in covered areas.

- Hazardous Waste Management. This BMP describes the requirements to properly design and maintain waste areas.

- Concrete Waste Management. Prevent and reduce pollutant discharge to storm water from concrete waste by providing on-site and off-site washouts in designated areas and training employees and consultants regarding their use.

- Sanitary Septic Water Management. Provide convenient, well-maintained facilities, and arrange regular service and disposal of sanitary waste.

- Vehicle and Equipment Cleaning. Use off-site facilities or wash in designated areas to reduce pollutant discharge into the storm drain facilities.
- Vehicle and Equipment Fueling. Use off-site facilities or designated enclosed coverings to reduce pollutant discharge into the storm drain facilities.
- Vehicle and Equipment Maintenance. Use off-site facilities or designated on-site enclosed areas with coverings to reduce pollutant discharge into the storm drain facilities. In addition, run a ″dry site″ to prevent pollution discharge into storm drains.
- Employee and Subcontractor Training. Have training sessions for employees and subcontractors to understand the need for implementation and usage of BMPs and the need and purpose for keeping the site clean.
- Preservation of Existing Vegetation. Minimize the removal of existing trees and shrubs because they serve as erosion control.
- Seeding and Planting. Provide soil stability by planting and seeding grasses, trees, shrubs, vines, and ground cover.
- Mulching. Stabilize cleared or freshly seeded areas with mulch.
- Geotextiles and Mats. Natural or synthetics material can be used for soil stability.
- Dust Control. Reduce wind erosion and dust generated by construction activities by using dust control measures.
- Construction Road Stabilization. All on-site vehicle transport routes should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.
- Stabilized Construction Entrance. Stabilize the construction entrance area to reduce amount of sediment tracked off the site.
- Earth Dikes. Construct earth dikes of compacted soil to divert runoff or channel water to a desired location.

- Temporary Drains and Swales. Use temporary drains and swales to divert off-site runoff around the construction site, stabilized areas, and direct it into sediment basins or traps.

- Outlet Protection. Use rock or grouted rock at outlet pipes to prevent scouring of soil caused by high velocities.

- Check Dams. Check dams reduce velocities of concentrated flows, thereby reducing erosion, and promoting sedimentation behind the dams. Check dams are small and placed across swales and drainage ditches.

- Silt Fence. Composed of filter fabric, which have been entrenched, attached to support poles, and sometimes backed by wire fence support. Silt fences promote sedimentation behind the fence of sediment-laden water.

- Straw Bale Barrier. Place straw bales end to end in a level contour in a shallow trench and stake them in place. The bales will detain runoff and promote sedimentation.

- Sand Bag Barriers. By stacking sand bags on a level contour, creates a barrier to detain sediment-laden water. The barrier will promote sedimentation.

- Brush or Rock Filter. Made of 0.75-inch to 3-inch diameter rocks place on a level contour or composed of brush wrapped in filter cloth and staked to the toe of the slope will provide a sediment trap.

- Storm Drain Inlet Protection. Devices that remove sediment from sediment laden storm water before entering the storm drain inlet or catch basin.

- Sediment Trap. A sediment trap is a small, excavated, or bermed area where runoff for small drainage areas can pass through allowing sediment to settle out.

Timing/Implementation: Prior to grading permit issuance.

Enforcement/Monitoring: City of Moorpark Public Works Department, and the development team's Qualified SWPPP Designer (QSD) and Qualified SWPPP Practitioner (QSP).

HYD-5: The Hitch Ranch Homeowners Association (HOA) and/or a Community Facilities District (CFD) shall be responsible for the maintenance of the basin embankments and

structures so that it does not become a public liability. This information shall be included in the HOA Covenants, Conditions & Restrictions (CC&Rs).

Timing/Implementation: Review of CC&Rs prior to issuance of first building permit.

Enforcement/Monitoring: City of Moorpark Community Development Department

3.9.10 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The development of the project would have less than significant impacts to hydrology and water quality with implementation of project design features and the mitigation program.

3.10 LAND USE AND PLANNING

INTRODUCTION

The California Environmental Quality Act (CEQA) Guidelines Section 15125(d) states that the environmental impact report (EIR) shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans. Therefore, it is appropriate to provide the reader information regarding relevant local and regional planning policies or programs that would be affected by this project. The information provided below defines relevant City of Moorpark General Plan policies and an associated consistency analysis. Following this General Plan consistency analysis, further analysis is provided regarding this project consistency with regional plans (i.e., air quality management plan, water quality control plan and congestion management program).

3.10.1 EXISTING CONDITIONS

The Hitch Ranch Specific Plan site is approximately 277.30 acres and located in the western portion of the City of Moorpark. The project site is currently undeveloped and is surrounded by a variety of land uses including residential, industrial, offices, agricultural, and open space lands. The site is located approximately 0.5-mile west of the Moorpark downtown area. Local public services and facilities already exist in the general vicinity. The project site has been planned for development and is designated by the Land Use Element of the *City of Moorpark General Plan* as part of the 285-acre Specific Plan Area 1 with an interim overlay designation of Agriculture 1. The specific plan designation is provided to address large-scale projects, and is intended to provide a planning tool for the systematic implementation of the General Plan. The overall 285-acre Specific Plan Area 1 includes a parcel on the easterly boundary immediately south of Casey Road that was dedicated to the Moorpark Unified School District in approximately 1997. An additional parcel in the southwest corner of the original 285-acre site was dedicated to Southern California Edison in approximately 2011. Those two sites are not included within the 277.30-acre Hitch Ranch Specific Plan area.

On-Site Land Uses. The project site is situated within the Transverse Ranges at the southern limit of the Simi Hills, between the Oak Ridge Mountains to the north and the Las Posas Hills to the south. The site is topographically characterized by gently rolling hills, and is dominated by a number of grassland, coastal sage scrub, coyote brush scrub, and woodland vegetation communities. Elevations at the site ranges from approximately 475 to 720 feet above mean sea level. The site has been previously disturbed, primarily due to agricultural activities, and consists primarily of non-native grassland vegetation. Remnant farm building foundations and numerous dirt roads are present on the site.

Based on review of the State Department of Conservation current farmland information obtained from the division of land resource protection, farmland mapping and monitoring program (via the County of Ventura, Resource Management Agency, GIS Mapping Services Division), the largest component of the Specific Plan site is classified as Grazing Land. **Table 3.10-1, Farmland Resources,** lists and defines the land use categories used by the farmland mapping and monitoring program, and includes the number of acres in each category that are located within the Specific Plan site. **Figure 3.10-1, State Important Farmland Map Designations**, shows the locations of the designated farmland resources on the Specific Plan site.

Table 3.10-1
Farmland Resources

Land Use	Acres
Farmland of Local Importance	96.4
Grazing Land	172.0
Urban and Built-up Land	5.0
Other Land	4.0

Source: California Department of Conservation, State Important Farmland Map, 2011.

As discussed in the Initial Study for the proposed project (included as **Appendix 1.0** to this DEIR), and **Section 1.0, Executive Summary**, implementation of the proposed project would result in the loss of Farmland of Local Importance and grazing land. Based on data from the California Department of Conservation 2014-2016 Land Use Conversion Report, Ventura County lost 383 acres of Farmland of Local Importance but gained 413 acres, for a net gain of 30 acres during the reporting period. Ventura County also gained approximately 65 acres of grazing land between 2014-2016.[1] The loss of agriculture resources related to the Proposed Project is limited to Farmland of Local Importance and grazing lands, and does not include Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Further, the proposed project would not conflict with an existing Williamson Act contract.

While the potential for significant impacts due to the loss of farmland exists, there is a history of failed farming activities on the property. As shown on Figure 3.10-1, the Farmland of Local Importance consists of fragmented, scattered segments of low-lying land which historically has been susceptible to frost,

1 Source: California Department of Conservation, Department of Land Resource Protection, Farm Land Management Program, 2014-2016 Agricultural Land Conversion Report, https://www.conservation.ca.gov/dlrp/fmmp/Pages/2014-2016_Farmland_Conversion_Report.aspx (2014-2016 is the most recent data available), accessed July 2, 2021.

resulting in failure of tree crops in the period between 1930 and 1960. Dry farming has not been sustainable for the same reason, and row crops are not economically viable on this soil type within these irregular-shaped farmland units. There are no active wells in operation on the subject property. Grazing of the property is not an economically viable land use as the property cannot support year-round grazing on a commercial scale. The current tenant seasonally grazes a small number of cattle and provides water to the site via water truck. Therefore, the loss of these resources is not considered a significant impact.

Surrounding Land Uses. The 277.30-acre Specific Plan area is located in the east-central portion of Ventura County within the City of Moorpark. The following is an identification of land uses in the immediate vicinity of the Specific Plan site based on a field reconnaissance:

- North: The land to the north includes existing residential development, as well as open space.

- South: A mix of institutional, residential, light industrial and commercial land uses occurs to the south. Among the uses to the south are Poindexter Park and Chaparral Middle School. A Ventura County Watershed Protection District concrete flood control channel (Walnut Canyon Channel) borders the southern site boundary. The Ventura County Transportation Commission/Union Pacific Railroad tracks are located just south of the flood channel. Poindexter Avenue, immediately south of the railroad right-of-way, is a two-lane local collector between Moorpark Avenue on the east and Gabbert Road to the west.

- East: Includes Walnut Canyon Elementary School and a few single-family homes immediately to the east. In addition, a post office, the City Civic Center, Aldersgate Senior Housing Project site, and Essex site are located to the east, and the Moorpark downtown area about 0.25 mile further east.

- West: Single-family homes, at rural densities, and open space are located to the west.

SOURCE: Impact Sciences, Inc. – October 2011

FIGURE **3.10-1**

State Important Farmland Map Designations

3.10.2 REGULATORY FRAMEWORK

3.10.2.1 City of Moorpark General Plan

The project site is designated in the *City of Moorpark General Plan* Land Use Element as Specific Plan Area 1, with an Agriculture 1 overlay. The specific plan designation is provided to address large-scale projects, and is intended to provide a planning tool for the systematic implementation of the General Plan.

Land Use Element (1992)

The current Specific Plan Area 1 General Plan land use designation allows a maximum of 415 dwelling units on the project site unless the property owner agrees to provide public improvements, public services and/or financial contributions that the City Council determines to be of substantial public benefit to the community, in which event, the maximum number of dwelling units is increased to 620.

The General Plan provides the following discussion with regards to Specific Plan Area 1:

> *Specific Plan [Area] 1 consists of 285 acres under single ownership, located in the western section of the City, north of Poindexter Avenue and the Southern Pacific Railroad tracks. Gabbert Road crosses the westerly portion of the specific plan area. Generally, the specific plan area is characterized by rolling hillsides which are currently used for grazing purposes.*
>
> ***Opportunities and Constraints***
>
> *Specific plan area development issues to be addressed during specific plan preparation and subsequent review will include:*
>
> *Topography - An evaluation of steep slopes, unstable soils, seismic faults, and other geotechnical constraints within the hillside areas of development will be considered during the development/review of this specific plan. Consistent with City policy, grading is restricted on slopes greater than 20 percent and development prohibited in areas where potential hazards cannot be fully mitigated.*
>
> *Hydrology - An evaluation of existing drainage courses, surface runoff, potential flood hazards, and other hydrological constraints will be conducted during the development/review of this specific plan.*

Viewshed - The visual importance of hillside horizon lines/prominent ridgelines within this specific plan area from surrounding areas will be evaluated during the preparation and review of this specific plan. Clustering of dwelling units should be considered where appropriate to conserve important visual and natural resources.

Biological Resources - The significance of biological resources which may occur on site (i.e., oak trees, threatened, rare, endangered plants and animals, etc.) shall be determined during specific plan preparation. The preservation of any resources determined to be significant shall be encouraged through habitat preservation, enhancement, or replacement.

Archaeology - The specific plan area will be evaluated to determine whether archaeological resources occur within the overall plan area and their potential significance.

Public Services/Infrastructure - Water, sewer, gas, and electric service to the specific plan area will be provided through service extensions from existing transmission lines in the surrounding area. An evaluation will be conducted during the development of this specific plan regarding required land use set-asides and financing for schools and community services such as fire stations and libraries.

Parks - An evaluation will be conducted during the development of this specific plan to identify required park land dedication consistent with the City Municipal Code and General Plan requirements.

Circulation - The specific plan area circulation network will require consideration for topographical constraints, viewshed issues, and the adjacent Southern Pacific railroad tracks; …; and shall ensure that roadway rights-of-way are protected for the planned roadway upgrades, improvements, and additions as identified in the City's circulation plan.

Proposed Land Uses

The number of dwelling units shall not exceed 415, unless the specific plan area property owner agrees to provide public improvements, public services, and/or financial contributions that the City Council determines to be of substantial public benefit to the community, in which event, the number of dwelling units shall not exceed 620. A minimum of 3 acres of land shall be designated as Public Institutional within this specific plan area. The appropriate amount of land to be designated as Open Space, Park, School, or any other appropriate land use designation, will be determined at the time of specific plan preparation or approval.

Overlay Designation - Agriculture 1 (285 acres)

Goals and Policies of the City of Moorpark General Plan Elements

The *Moorpark General Plan* contains several elements with goals and policies that function as a hierarchy and provide the basis for decision making regarding the City's long-term physical development. The goals and policies for each of the six individual Elements, Land Use, Circulation, Open Space, Conservation, & Recreation (OSCAR), Housing, Safety, and Noise, are listed below in section **3.10.4, Project Impacts**, along with analysis to demonstrate the Proposed Project's consistency with the City's General Plan Elements goals and policies. Those goals and policies which are not applicable to the Proposed Project have not been listed or analyzed.

3.10.2.2 City of Moorpark Zoning Ordinance

The City of Moorpark zoning designations have been proposed as part of the Specific Plan, consistent with the City's General Plan. The proposed Specific Plan includes zoning for the property.

Hillside Management Standards. The *City of Moorpark Zoning Code* Chapter 17.38, Hillside Management, states, "The hillsides within the City constitute a significant natural topographical feature of the community, and provide aesthetic relief to the viewscape from virtually every location in the City." The specific goals and policies of this chapter reflect those contained in the General Plan and provide the purpose and intent of this chapter:

- To allow for development patterns in hillside areas that minimize erosion and geologic hazards and that provide for the protection of the public health, safety and welfare.
- To encourage grading techniques that blend with the natural terrain, minimize earth-moving activity, minimize impacts of large cut-and-fill slopes, and provide for the preservation of unique and significant landforms.
- To encourage retention of natural drainage patterns and the preservation of significant riparian areas.
- To reduce water use in slope replanting and retention by encouraging grading design that minimizes manufactured slopes.
- To allow density transfers, where appropriate, to facilitate development in more appropriate locations while retaining significant natural slopes and areas of environmental sensitivity.

- To substantially retain the integrity and natural grade elevations of the significant natural ridgelines and prominent landforms that, in aggregate, form the City's skyline backdrop.

- To the maximum extent possible, preserve the view from the valley floor and make every effort to maintain the original view of the site.

Site planning techniques that ensure integration of development with physical features such as natural bowls, broad plateaus, valleys, and similar natural features are encouraged. A discussion of consistency with the Hillside Management Standards is discussed in **Section 3.1, Aesthetics**, of this EIR.

3.10.2.3 Other Municipal Code Regulations

Historic Trees, Native Oak Trees, and Mature Trees

In accordance with City of Moorpark Municipal Code Chapter 12.12, the City has determined that, to the extent possible, mature trees, native oak trees, and historic trees should be protected and preserved. Particularly with respect to urban developments, such trees are considered to be a "significant, historical, aesthetic, and valuable ecological resource."

The City defines a historic tree as

> *A living tree designated by resolution of the city council as an historic tree because of an association with some event or person of historical significance to the community or because of special recognition due to size, condition or aesthetic qualities.*

A mature tree is defined as

> *A living tree with a cross-sectional area of all major stems, as measured four and one-half (4 1/2) feet above the root crown, of seventy-two (72) or more square inches.*

A native oak tree is defined as

> *A living tree of the genus Quercus and species lobata, agrifolia, dumosa or hybrids thereof.*

When one or more native oak trees, historic trees, or mature trees are to be removed for urban development, the community development director will require a report be prepared by an arborist, horticulturist, or registered landscape architect to include the following information: (1) tree type by common name and genus and species; (2) diameter of trunks or main stems as measured 4.5 feet above the root crown; (3) average spread of each tree; (4) letter grade for the health of each tree; (5) letter grade for the aesthetic quality of each tree; (6) any significant disease or insect infestations, heart rot, fire,

mechanical, or wind damage; (7) recommended tree surgery, chemical treatment, or other remedial measures intended to improve the health, safety, or life expectancy of the tree; and (8) appraisal value of each tree. This report is required as a part of the tree removal permit request to the City. A discussion of consistency with the Municipal Code and tree survey is discussed in **Section 3.2, Biological Resources**, of this EIR.

3.10.2.4 Air Quality Management Plan

The City of Moorpark is situated within the Oxnard Plain airshed of Ventura County. Based on state and federal air quality standards, this airshed has been declared a non-attainment area for ozone and fine particulate matter less than 10 microns in size (PM_{10}). The Ventura County Air Pollution Control District (APCD) is responsible for monitoring air pollutant levels throughout the County and for developing and implementing attainment strategies to bring the County into compliance with national and state air quality standards. The APCD has combined these strategies into an Air Quality Management Plan (AQMP). The AQMP includes population forecasts for the various cities as a baseline for determining whether a project would have the potential to worsen air quality as a result of development that exceeds the population allocated for that area. Such development intensity can result in increased air pollutants associated with higher volumes of vehicle travel as well as stationary sources related to energy consumption and industrial activities. A discussion of consistency with the AQMP is discussed in **Section 3.2, Air Quality**, of this EIR.

3.10.2.5 Water Quality Management

A water quality control plan for the entire Los Angeles Region, including all of Ventura County, is prepared, updated, and administered by the California Regional Water Quality Control Board, Los Angeles Region. The Los Angeles Regional Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters.[2] Specifically, the Basin Plan (1) designates beneficial uses for surface and ground waters, (2) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy, and (3) describes implementation programs to protect all waters in the Region. Pursuant to the federal Clean Water Act (CWA), the plan provides the primary basis for establishment of water quality objectives, effluent quality limits, and discharge prohibitions.

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2 California Regional Water Quality Control Board, Los Angeles Region. *Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. Available at:* https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/, accessed on February 13, 2020.

The project site is within the Calleguas-Conejo Hydrographic Subunit of the Santa Clara River Basin water quality planning area. Although the project site does not drain directly into either Calleguas or Conejo Creeks, site runoff does reach Calleguas Creek via the Arroyo Simi. According to the plan, the project site is within a large groundwater resource area stretching from western Simi Valley to the Somis area. Pollutant constituents of site runoff, therefore, indirectly affect the water quality of both surface and groundwaters in this hydrographic subunit. Additionally, the proposed project would be subject to Section 402(p) of the CWA, which regulates the previously specified storm water discharges under the National Pollutant Discharge Elimination System (NPDES) program. This program requires that all flood control facilities be in compliance with the general permit for Ventura County or under conditions placed upon individual NPDES permits, which may be required for a given segment of the project.

The Ventura County Flood Control District (VCFCD) prepared a report[3] that identified a series of drainage facilities which would be required to resolve existing flooding problems in the west side of the City of Moorpark. This report identified three stormwater detention basins to be located on the project site. In addition to flood control, these basins are intended to serve as water quality filters and would be to capture and/or filter first flush flows. Each water quality filter would be located near the end of a storm drain, just upstream of the discharge point. The bottom of the filter is earthen, gravel, or grass lined. Much of the non-storm flows carried by the storm drain will percolate from new development. Sediments and urban pollutants (i.e., petrochemicals, fertilizers, etc.) would be retained in the filter bottom. Accumulated sediments and vegetation will require periodic removal, which would be disposed of at an environmentally appropriate facility. As proposed, these facilities would meet the goals of the County's water quality control plan and the Specific Plan would be consistent with the basin plan. A discussion of consistency with the water quality standards is discussed in **Section 3.8, Hydrology and Water Quality**, of this EIR.

3.10.2.6 Congestion Management Program

The Congestion Management Program (CMP) was enacted by the state legislature to address traffic congestion in California's urbanized counties. By statute, the CMP has five elements: (1) a system of highways and roadways with minimum level of service performance standards designated for highway segments and key roadway intersections on the system; (2) transit standards for frequency and routing of transit service and coordination between transit operators; (3) a trip reduction and travel demand management element promoting alternative transportation methods; (4) a land use impact analysis program; and (5) a seven-year capital improvement program of projects. A discussion of the Specific Plan in comparison to the CMP is provided in **Section 3.15, Transportation,** of this EIR.

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3 *Gabbert and Walnut Canyon Channels Flood Control Deficiency Study*, VCFCD, July 2, 1997.

3.10.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines*, the impact of the proposed project related to land use and planning would be considered significant if it would:

- Physically divide an established community.
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.10.4 PROJECT IMPACTS

Impact LAN-1 Physically divide an established community.

No Impact

A significant impact would occur if the proposed project would physically divide an established community. The 277.30-acre project site is currently undeveloped and vacant. Land uses surrounding the project site include Walnut Canyon Elementary School and single-family homes directly east of the project site. In addition, a post office, the City Civic Center, Mansi Senior Housing Project, and Essex site are located to the east, and the Moorpark downtown area about 0.25 mile further east. To the south are Poindexter Park and Chaparral Middle School, along with industrial and commercial land uses. Rural density single-family homes and open spaces are located to the west. More single-family residential and open spaces are to the north. Currently, only private, gated access to the site is available from Gabbert Road on the West and from Casey Road on the east. The proposed Specific Plan provides various land uses including several types/intensities of residential land uses, recreational uses, flood control facilities, and other infrastructure improvements. These site improvements would be compatible with the surrounding land uses. Furthermore, an access plan for the developed site would ensure connection with the surrounding community and circulation system. As such there would be no impact related to physically dividing a community.

Impact LAN-2 **Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.**

Less than Significant

Policies and goals of the *City of Moorpark General Plan* relevant to the revised Specific Plan project were analyzed to assess the proposed project's consistency with these policies and goals. The following discussion summarizes the findings of this analysis.

City of Moorpark General Plan

Land Use Element

The City's land use goals are broad statements identifying the land use character of the City or community. Land use policies are specific statements committing the City to courses of action.

The Land Use Element Goals and Policies focus on the following areas:

- Balanced community growth patterns;
- Land use compatibility;
- Maintaining a suburban rural community character while revitalizing the downtown area;
- Preservation of important natural features, and visually prominent hillside areas; and
- Overall intensity and density of residential land is proximate and adjacent to commercial uses.

Growth and Population

Goal 1: Attain a balanced City growth pattern which includes full mix of land uses.

Policy 1.1: New development and redevelopment shall be orderly with respect to location, timing, and density/intensity; consistent with the provision of local public services and facilities; and compatible with the overall suburban rural community character.

Policy 1.3: New residential development shall be consistent with City-adopted growth ordinance policies.

Policy 1.4: New development and redevelopment shall be coordinated so that the existing and planned capacity of public facilities and services shall not be adversely impacted.

Policy 1.5: A comprehensive planning approach for undeveloped areas of the community shall be followed, to prevent disjointed, incremental expansion of development.

Goal 1 Plan Implementation

Consistent. The Specific Plan allows the development of 755 residential dwelling units, approximately 14 acres of active and passive public park space and recreational facilities and approximately 75 acres of open space In addition, the implementation of the Specific Plan would include the donation of an approximately 23.44 acre parcel (zoned RPD-20U-N-D) to be dedicated to the City for future residential development. The Hitch Ranch project implements the existing land use policies for this site, by specifying the arrangement, density, and character of permitted land uses consistent with adopted City policies and regulations. As detailed in the Specific Plan, existing and planned public services and infrastructure will serve the Hitch Ranch development.

Residential Development

Goal 3: Provide a variety of housing types and opportunities for all economic segments of the community.

Policy 3.1: A mix of residential densities shall be provided which accommodates the housing needs of all members of the community.

Policy 3.2: Residential projects shall include variation of residential product types, lot sizes, and designs, unless determined by the City to be infeasible due to the size of the project.

Policy 3.3: Where feasible, inclusionary zoning shall be used to require that a percentage of new, private residential development be affordable to very low to moderate income households.

Goal 3 Plan Implementation

Consistent. Hitch Ranch is a planned residential development that includes multiple regional public benefit improvements. The diverse residential types will address a number of communities housing issues, including affordable and market rate multi-family housing, smaller single-family housing for first-

time home buyers, move-up housing, and executive housing. A total of 755 housing units are proposed for Planning Areas (PA1, PA2, PA3 and PA4) that have a range of densities. As such, Hitch Ranch will make a substantial contribution toward attainment of community housing goals. Approximately three hundred and twenty-eight (328) of the total number of units will be attached multi-family units that include approximately 135 affordable rental apartment homes (41% of the total number of attached multi-family units and 17.8% of the total number of units); approximately 100 for sale townhomes; and approximately 93 for sale attached homes. There are approximately 427 detached single-family residences, each residence would have 3-5 bedrooms. In addition, the Project includes a donation of 23.44 acres to the City to enable the City of Moorpark to pursue the development of up to 333 affordable housing units under a separate process at a future date.

Table 3.10-2
Dwelling Units by Planning Area

Planning Area	Single Family Dwelling	Multi-family Dwelling	Affordable	Total Dwelling Units
PA 1	79	--	--	79
PA 2	188	--	--	188
PA 3	160	93	--	253
PA 4	--	100	135	235
Total	**427**	**193**	**135**	**755**

** Transfer of dwelling units shall be allowed within an individual Planning Area to another Planning Area. The allowable percentage of units transferred shall not exceed 15% of the total within either individual Planning Area.

Source: Development Planning Services, July 2021

Goal 5: Develop new residential housing which is compatible with the character of existing individual neighborhoods and minimizes land use incompatibility.

Policy 5.1: Multiple-family dwellings shall be developed in close proximity to employment opportunities, shopping areas, public parks, and transit lines, with careful consideration of the proximity to and compatibility with single-family neighborhoods.

Policy 5.2: Infill development in existing residential neighborhoods shall be compatible with the scale and character of the surrounding neighborhood.

Policy 5.3: Landscaped and/or natural vegetation buffer areas shall be provided around and within residential projects to minimize land use conflicts and privacy impacts.

Policy 5.4: Clustering of residential dwelling units may be allowed, if it can be shown that the common area created by the clustering is designed to protect a public interest or provide a public benefit such as the following: protects environmentally sensitive habitat or agricultural land; promotes land conservation as well as visual relief; provides a substantial recreational opportunity or an affordable housing benefit.

Goal 5 Plan Implementation

Consistent. Hitch Ranch is located approximately 900 feet west of State Route 23 and extends to approximately 1,400 feet west of Gabbert Road and is accessible to transit lines, shopping, recreation and employment opportunities.

Hitch Ranch is a residential development that is compatible with the scale, density, visual character, and design of neighboring residential areas such as the Meridian Hills, Gabbert neighborhood and Moorpark Highlands subdivisions. Land uses surrounding the project site include: Walnut Canyon Elementary School and a few single family homes immediately to the east. In addition, a post office, the City Civic Center, Aldersgate Senior Housing Project, and the Essex apartment site are located to the east; and the Moorpark downtown area about 0.25 mile further east. A mix of institutional, residential, light industrial and commercial land uses occurs to the south. Among the uses to the south are Poindexter Park and Chaparral Middle School. Single family homes, at rural densities, and open space are located to the west. Residential development and open space uses are located to the north. Landscape areas, open spaces and park spaces buffer the perimeter of Hitch Ranch; a generous buffer is provided for the Gabbert neighborhood in keeping with the rural character of the community.

Higher density multi-family housing is located closest to the downtown, transit and other higher density communities; the larger lots on the west edge are more consistent with context of the Gabbert neighborhood.

Goal 6: Encourage the use of Specific Plans in the undeveloped areas of the community.

Policy 6.1: Specific Plans shall be utilized as a tool for implementation of General Plan policies and priorities for larger land areas. The intent of each Specific Plan is to achieve a long-term cohesive development program which is responsive to the

physical and economic opportunities and constraints of each individual Specific Plan area.

Policy 6.2: The ultimate land uses, design guidelines, development standards, infrastructure and phasing requirements adopted for any given Specific Plan shall be consistent with the General Plan text discussion (see Section 5.2) of the type, location and intensity of use determined appropriate for each Specific Plan area.

Policy 6.3: Where the City finds it appropriate to consider development permit requests for individual parcels within "multiple ownership" Specific Plan areas prior to the adoption of a Specific Plan, the permit request shall be based upon the General Plan overlay designation as shown on the land use plan. The overlay designation is intended to reflect a level of intensity and types of uses that are appropriate to occur in the absence of an overall Specific Plan. Said individual requests shall be consistent with the General Plan text (see Section 5.1) discussion of the type, location and intensity of use determined appropriate for the General Plan overlay designation assigned to each multiple ownership Specific Plan area. Properties within the City's sphere of influence, that are proposed to be annexed into the City limits, shall not be exempted from a Specific Plan requirement.

Policy 6.4: Development intensity and density should decrease as distance from arterials and commercial shopping areas increases.

Policy 6.5: The land use plan shall include adequate land for public recreational, cultural, educational, institutional (governmental, police, fire, etc.), religious and other service uses for the community.

Goal 6 Plan Implementation

Consistent. Hitch Ranch is designated as Specific Plan Area No. 1 in the Moorpark General Plan Land Use Element. The Hitch Ranch Specific Plan will be used to identify the type, location, and intensity of appropriate uses with the Land Use Element and provides design guidance for development standards, design, and infrastructure. The Hitch Ranch Specific Plan includes a variety of housing densities which decrease as distance from the commercial areas of the City increases, and provides approximately 75 acres of open space, approximately six acres of private recreational space and approximately 14 acres of public parkland.

Public Facility and Service

Goal 12: Ensure that a full range of public facilities and services are provided to meet the needs of the community.

Policy 12.1: Development shall be permitted only when adequate public facilities and services are available or will be provided when needed.

Policy 12.2: Efficient and equitable delivery of urban services shall be ensured by the development of capital improvement plans for urban services which 1) identify existing and future (general plan buildout) needs; 2) establish a phasing plan for providing new urban services commensurate with needs generated by existing and future development; 3) assure that financing is available to provide adequate necessary facilities and services prior to approval of any project which would exceed the capacity or significantly reduce the quality of existing services.

Policy 12.4: New residential development shall include adequate public and private open space and recreational uses to serve residential neighborhoods.

Policy 12.5: The City's current standard of five acres of parkland per 1,000 persons, or such higher maximum standard allowed by State law, shall be maintained consistent with the City's Open Space and Recreation Element to ensure that adequate passive/active parkland is provided in conjunction with future infill, redevelopment, and new development projects.

Policy 12.6: Developers of new commercial and industrial buildings or expansion projects shall be required to pay the established fee for City park and recreation facilities and services.

Policy 12.7: Where feasible, shared use programs between public and private service and facility providers shall be encouraged.

Policy 12.8: Any proposed project shall be required to contribute its fair share of the cost of providing adequate public services and facilities.

Policy 12.9: Where determined feasible, future development shall include infrastructure improvements to allow use of tertiary treated water.

Goal 12 Plan Implementation

Consistent. Hitch Ranch includes numerous improvements to public facilities and services for the benefit of the Plan area residents and the region. Public improvements will meet local and regional needs by including upgrades to roadway connections to address existing network deficiencies and flood control/drainage improvements. These roadway connections will provide improved emergency and fire department access to existing adjacent neighborhoods, the Walnut Canyon School and Boys and Girls Club.

Five private recreation areas are included as part of the Specific Plan. Planning Area 1 would include an approximately three-acre private recreation area, maintained by a homeowners association, which will include a clubhouse and swimming pool; within PA2, approximately four acres of passive and active recreation area is planned. PA3 is proposed to have approximately one acre of active recreation area. A private passive recreation area has been designated within PA4. Two public parks totaling approximately 14 acres are proposed along the High Street frontage of the specific plan area, adjacent to the City of Moorpark Civic Center property. This public park land would be dedicated to the City of Moorpark and would partially fulfill the requirements of the General Plan for park dedication. Additionally, there are over five and one-half miles of multi-use and equestrian trails in Hitch Ranch that connect to local and regional trails.

Project-related infrastructure improvements will address existing local and regional needs by including upgrades to roadway connections to address roadway network deficiencies and provide necessary flood control/drainage improvements.

Natural gas and electrical service to the project site would be provided by extending existing lines, which serve existing urban uses to the west, east, and south of the site. The size and location of lines that would serve the proposed project would be determined when individual tract maps are prepared for each phase of the project. Refer to **Section 3.5, Energy** for further analysis regarding natural gas and electrical usage for the project.

Water service to the project site would be provided by the Ventura County Waterworks District No. 1. Domestic water service would be connected at the site boundary at Meridian Hills Drive, High Street, Poindexter Avenue and Casey Road and be pressure looped through the project site. Currently, there are 8-inch water mainlines in Poindexter Avenue, Casey Road and Gabbert Road; these lines would be interconnected to serve the project site. The precise configuration of the water service system for the proposed project would be determined when individual tract maps are prepared for each phase of the project. Refer to **Section 3.17, Utilities, Water** for further analysis of water service.

The Project Applicant will enter into an agreement with the Ventura County Waterworks District to fund recycled water infrastructure within the District. This funding will be used for increased recycled water infrastructure to offset irrigation of common areas such as open space and landscaped areas.

Sanitary sewer service for the project will be provided by Ventura County Waterworks District No. 1 (VCWWD1) by connecting to their existing sewer line on Gabbert Road. To connect to VCWWD1's facilities, the onsite sewer main will run perpendicular to and beneath the Walnut Canyon storm channel and the Union Pacific Railroad/Metro Rail tracks at Gabbert Road. No interference in rail operations is anticipated as the sewer main would be installed utilizing a bore pit and jacking method of installation to connect at the intersection of Gabbert Road and Poindexter Avenue. To accommodate the anticipated flows from the Hitch Ranch project, the existing 8-inch and 12-inch diameter sewer main on Gabbert Road and on Los Angeles Avenue would require upsizing to a 15-inch diameter sewer line. Upsizing would occur from the intersection of Gabbert Road and Poindexter Avenue to the north side of the intersection of Los Angeles Avenue and Mira Sol Drive.

The configuration of the sewage collection system for the project will be determined at the time individual tract maps are prepared for each phase of the project. Refer to **Section 3.17, Utilities, Wastewater** for further analysis of the sewer service.

Some required portions of the Ventura County Watershed Protection District (previously the Ventura County Flood Control District) flood-control master plan facilities are incorporated as part of the proposed project; these facilities would serve the project site and provide flood control for the local drainage basin (i.e., Gabbert and Walnut Canyons). These facilities were identified as part of the Gabbert and Walnut Canyon Channels Flood Control Deficiency Study, Initial Study Hitch Ranch Specific Plan July 10, 2019, which was prepared for the Ventura County Flood Control District (dated March 1997). As proposed, the specific plan designates three sites for use as detention basins, with a total area of approximately 24.53 acres: Detention Basin 3 is approximately 12.27 acres and is located south of Planning Area 4, Detention Basin 2 is approximately 5.96 acres in size and is located east of proposed Gabbert Road south of North Hills Parkway, and Detention Basin 2B is approximately 6.30 acres and is located east of Gabbert Road north of North Hills Parkway. All three basins are designed as soft-bottom facilities, which would ultimately drain to the Ventura County.

Watershed Protection District (VCWPD) channel (Walnut Canyon Channel) located along the southern perimeter of the project site. In addition to the previously identified drainage basins, the proposed specific plan includes a 2.7-acre VCWPD easement along the southern project boundary.

The Project Applicant will be responsible for the financing and construction of the water, drainage and wastewater system improvements necessary to serve the proposed development. Upon completion of construction, funding and responsibilities for on-going maintenance of the onsite detention basins will be addressed in a Community Facilities District (CFD) agreement.

Economic Development and Employment

Goal 13 Achieve a well-balanced and diversified economy within the City which provides a variety of economic and employment opportunities.

Policy 13.1: A balanced job/housing ratio should be encouraged.

Goal 13 Plan Implementation

Consistent. Housing availability for the labor force is an important economic driver. Hitch Ranch is a new residential community that includes a diverse range of housing types. Increasing the range of housing options for residents will lead to increased local economic vitality, contribute to improving the City's jobs/housing balance and expand the local employment base to create a more diverse and balanced community.

Preservation of Environmental Quality

Goal 14: Establish land uses and development intensities which are compatible with scenic and natural resources and which encourage environmental preservation.

Policy 14.1: New development shall be located and designed to minimize adverse visual and/or environmental impacts to the community.

Policy 14.2: New development shall respect, integrate with, and complement the natural features of the land.

Policy 14.3: New development shall not contribute to or cause hazardous conditions of any kind.

Policy 14.6: Areas identified as significant aquifer recharge areas shall be protected and preserved.

Goal 14 Plan Implementation

Consistent. The Specific Plan concentrates development in areas that will preserve natural features and open space. The plan focuses the highest density development in the closest proximity to the downtown

commercial core, civic center and Metrolink transportation hub. Larger lots are focused toward the open space areas on the north and westerly sides of the project boundary.

As a residential project, the development of Hitch Ranch would not contribute to or cause hazardous conditions of any kind. Aquifer recharge capacity will be enhanced by preserving the alluvium areas along High Street and Gabbert Road.

Goal 15: Maintain a high quality environment that contributes to and enhances the quality of life and protects public health, safety and welfare.

Policy 15.1: Public & private projects shall be designed so that significant vegetation shall be maintained and protected, including riparian and oak woodland vegetation and mature trees (as defined in the City Code).

Policy 15.2: Ecologically sensitive habitats shall be protected and preserved or replaced with no net loss of habitat so long as there is substantial public benefit to any relocation program.

Policy 15.3: Natural and cultural resources having significant educational, scientific, scenic, recreational or social value shall be protected and preserved.

Policy 15.4: Development which will not result in a negative impact on air quality shall be encouraged in order to maintain and enhance air quality for the health and well-being of City residents.

Policy 15.5: The City shall require developers to maintain wildlife corridors to allow for the passage of animals between designated open space or recreation areas.

Policy 15.9: New development projects shall be required to use xeriscape landscaping techniques which include drought-tolerant plant species, reduction of turf area, irrigation designed to meet plant needs, and grouping plants according to their watering needs.

Policy 15.10: The City shall encourage the introduction of water conservation fixtures, which exceed Building Code requirements, into new development projects.

Goal 15 Plan Implementation

Consistent. The quality of life in a community is shaped by factors including natural environment, built environment, cultural and social environments. The Hitch Ranch Specific Plan composes these elements to contribute to the quality of life for all Moorpark residents. Specifically, the Specific Plan concentrates development areas to preserve natural features and open space. The plan focuses the highest density development in the closest proximity to the downtown commercial core, civic center and Metrolink transportation hub. Cognizant of the rural nature toward the west and north of the project boundary, larger lots have been purposefully placed to create a softer transition from open space to the built environment.

Landscape and lighting features will be sensitive to the environment, as well as comply with Moorpark standards and Title 24 *CalGreen* codes The network of trails, parks and natural open space create an active, outdoor-oriented community that creates opportunities for social interaction benefiting existing and future residents of Moorpark. Residents of neighborhoods that are currently underserved would have access to the network of trails in the Specific Plan area.

Community Appearance

Goal 16: Enhance and maintain the suburban/rural identity of the community**.**

Policy 16.1: For each existing neighborhood the overall theme(s) and character shall be maintained or enhanced. Redevelopment and/or infill projects shall be consistent with the theme and character of the area.

Policy 16.2: Hillside development standards shall be adopted which restrict grading on slopes greater than 20 percent and which encourage the preservation of visual horizon lines and significant hillsides as prominent visual features.

Policy 16.3: The overall density and intensity of development should decrease as the slope increases.

Policy 16.4: New residential development should complement the overall community character of the City, establish a sense of place, and ensure compatibility with important existing local community identities.

Goal 16 Plan Implementation

Consistent. The Specific Plan creates a community that enhances Moorpark's identity by concentrating higher density residential areas near the historical downtown while transitioning to more suburban and rural residential areas in the hills. The Specific Plan landscape and architectural design guidelines reflect the historic Early California and rural architectural character that distinguishes the Moorpark community.

Goal 17: Enhance the physical and visual image of the community.

Policy 17.1: New development shall be compatible with the scale and visual character of the surrounding neighborhood.

Policy 17.2: Identifiable entryways for the overall community, and unique or principal business/commercial districts of the City (i.e., City core and transportation corridors) should be encouraged.

Policy 17.4: Design concepts should be established for the overall community and for special treatment areas, such as the downtown district, which may include guidelines for architecture, landscape architecture, signage, streetscape, and infrastructure.

Policy 17.5: New development should incorporate a variety of landscape architecture themes and techniques to help organize and delineate land uses and to enhance the overall visual quality of the City.

Policy 17.6: Enhanced landscaping shall be used around residential, commercial and industrial buildings and parking areas as well as along easements of flood control channels, roadways, railroad right of ways, and other public and private areas, to soften the urban environment and enhance views from roadways and surrounding uses.

Policy 17.7: Design features which provide visual relief and separation shall be required between land uses of conflicting character.

Policy 17.8: Undergrounding of utilities shall be required in conjunction with development projects whenever feasible.

Policy 17.9: Visual impacts of above-grade utility structures, such as water storage tanks, water check valves, electric and telephone boxes, etc., shall be minimized through use of landscaping, materials, and colors that blend with the environment.

Goal 17 Plan Implementation

Consistent. The Hitch Ranch Specific Plan is a comprehensive document that provides guidance regarding design and development standards for each product type, and architectural and landscape design guidelines.

The design guidelines identify preferred architectural styles and design details that promote a high-quality appearance. The architectural styles have been chosen based on the City's visual character and the Hitch Ranch property history. Referencing the City's legacy informs the preferred design context. In keeping with the City's General Plan goals and consistent with the visual character of the Specific Plan area, new development will reflect traditional rural and early California architecture that incorporates the following characteristics:

- Simple forms and shapes;
- Gable roofs;
- Defined entries and porches;
- Variety of exterior materials to provide texture and visual interest;
- Use of trim elements that reflect appropriate scale and proportion; and
- Traditional window sizes and patterns

The architecture styles proposed to be utilized within the project are Spanish, Farmhouse, Traditional and Cottage. The use of a variety of exterior materials including stucco, lap siding, board and batten brick, and manufactured stone will be composed to provide distinctive appearances to the residences. Residences have been designed to include a defined and welcoming entry to each residence.

Landscape is an important characteristic of the overall design program. Landscape guidelines will identify appropriate use of native and adaptive plant materials. Context appropriate planting and hardscape materials that are water conserving and fire resistant will be used consistent with City requirements.

With the architecture, landscape elements, and the development standards, the Hitch Ranch Specific Plan will guide the development of this distinctive community.

Circulation Element

The City of Moorpark Circulation Element was adopted in 1992. The Highway Network Plan in the Circulation Element is based on roadways needed to accommodate the anticipated growth envisioned in the General Plan Land Use Element while achieving the identified goals for level of service.

The Circulation Element includes seven goals and 49 policies to assist in achieving these goals. Goals and polices relevant to the proposed project are listed below:

General

Goal 1: Provide a transportation system that supports the land use plan in the General Plan and provides for the safe and efficient movement of people, goods and services within, into, out of, and through the City of Moorpark.

Policy 1.1: The completion of the ultimate circulation system, through the improvement of sub-standard roadway segments and intersections and the construction of missing roadway links and related facilities shall be actively promoted.

Policy 1.4: New residential streets should be designed so as to discourage pass-through trips which do not begin nor end within the residential area served by the street.

Policy 1.7: Roadways, pedestrian areas, walks, street name signs and utilities in applicable outlying areas shall be designed to convey a rural appearance while providing for low maintenance costs and safe passage of vehicles, pedestrians, equestrians, and bicycles.

Goal 1 Implementation

Consistent. The Specific Plan provides for a hierarchical system of streets that is consistent with the Circulation Element and that connects with other streets and roadways to link throughout the City and the greater area. This includes the extension of Meridian Hills Drive, North Hills Parkway, Casey Road, High Street and "A" Street. The street network provided by the Specific Plan greatly improves the fire safety and emergency access to the Meridian Hills and Gabbert Road neighborhoods as well as eliminates the sub-standard single point of access at the existing Walnut Canyon School campus.

Level of Service

Goal 2: Provide a circulation system which supports existing, approved and planned land uses throughout the City while maintaining a desired level of service on all streets and at all intersections.

Policy 2.1: Level of service 'C' shall be the system performance objective for traffic volumes on the circulation system. For roadways and interchanges already operating at less than level of service 'C', the system performance objective shall be to maintain or improve the current level of service.

Policy 2.2: Project phasing shall be coordinated with construction of on-site and off-site circulation improvements to maintain the performance standards objectives specified in Policy 2.1 and to ensure that improvements are in place when needed.

Policy 2.3: New development projects shall mitigate off-site traffic impacts to the maximum extent feasible.

Policy 2.4: All new development shall participate in a transportation improvement fee program. This fee enables circulation improvements to be funded by new development in a manner that maintains the performance objectives specified in Policy 2.1.

Policy 2.5: Driveway access points onto arterial roadways shall be limited in number and location in order to ensure the smooth and safe flow of vehicles and bicycles.

Policy 2.6: Secondary access should be required for projects located in the middle of a block adjacent to a limited-access arterial.

Policy 2.7: Traffic signal or stop sign installation shall be required at intersections which, based on individual study, are shown to satisfy traffic or stop sign warrants.

Policy 2.10: On-street parking on any new arterial streets shall be prohibited. For existing arterial streets with parking allowed, special studies should be

carried out to ensure off-street parking adequacy prior to prohibiting on -street parking.

Policy 2.11: Adequate off-street parking shall be provided in all new or expanded projects as part of construction.

Goal 2 Plan Implementation

Consistent. The Project circulation system integrates with and extends existing streets such as Casey Road and High Street and accommodates planned future uses through the extension of North Hills Parkway.

Policy 2.1 establishes Level of Service (LOS) 'C' as the circulation system performance objective Citywide. Without the roadway improvements planned as part of the Proposed Project, the Project would be inconsistent with Goal 2, Policy 2.1, i.e., maintaining LOS 'C' for traffic volumes on the circulation system.

A Traffic Impact Assessment (TIA) and a Supplemental Traffic Analysis (STA)[4] were prepared in order to: 1) assess the change in traffic flow produced by the Proposed Project and cumulative traffic identified by the City for future projects; and 2) to determine if, when compared to existing conditions, the implementation of the Proposed Project and cumulative traffic impacts would cause any of the studied intersections to function below the City's LOS C performance objective as outlined in Policy 2.1. The TIA assessed 35 intersections, with the STA adding an additional two intersections:

TIA Intersections

1. Walnut Canyon Rd & Broadway Rd
2. Walnut Canyon Rd & Championship Dr
3. Walnut Canyon Rd & Spring Rd
4. Walnut Canyon Rd & Casey Rd
5. Moorpark Ave & High St
6. Spring Rd & High St
7. Gabbert Rd & Poindexter Ave
8. Moorpark Ave & Poindexter Ave/1st St
9. Somis Rd & Los Angeles Ave
10. Grimes Canyon Rd & Los Angeles Ave
11. Tierra Rejada Rd & Los Angeles Ave
12. Moorpark Ave & Los Angeles Ave
13. Spring Rd & Los Angeles Ave
19. Mountain Trail Rd & Tierra Rejada Rd
20. Mountain Meadow Dr & Tierra Rejada Rd
21. Walnut Creek Rd & Tierra Rejada Rd
22. Peach Hill Rd & Tierra Rejada Rd
23. Spring Rd & Tierra Rejada Rd
24. Moorpark Rd & Tierra Rejada Rd
25. SR-23 SB ramps & Tierra Rejada Rd
26. SB-23 NB ramps & Tierra Rejada Rd
27. Moorpark Rd & Santa Rosa Rd
28. Broadway Rd & Grimes Canyon Rd
29. Championship Dr & Grimes Canyon Rd
30. Meridian Hills Dr & Walnut Canyon Rd
31. SR 118 WB & Collins Dr

4 Both of these studies are included in Appendix 3.15 to this EIR.

14. Miller Pkwy/Science Dr/Los Angeles Ave
15. SR-23 SB ramps & Los Angeles Ave
16. SR-23 NB ramps & Los Angeles Ave
17. Spring Rd & Peach Hill Rd
18. Tierra Rejada Rd & Countrywood Dr
32. SR 118 EB & Collins Dr
33. Street "A" at Meridian Hills Dr (*Future*)
34. Street "A" at High St (*Future*)
35. Street "A" at Casey Rd (*Future*)

STA Intersections

1. Gabbert Rd & North Hills Pkwy (Future)
2. Gabbert Rd & High St (Future)

When analyzed against existing conditions (refer to **Appendix 3.10, General Plan – Circulation Element Consistency Analysis**), the change in traffic flow generated by the Proposed Project would cause three intersections to function below the City's LOS C performance (Walnut Canyon Rd & Spring St [PM peak hour], Walnut Canyon Rd & Casey Rd [AM peak hour], and Spring St & High St [PM peak hour]). When analyzed against Future with Project (Cumulative) conditions, six intersections (Walnut Canyon Rd & Casey Rd [AM and PM peak hour], Moorpark Ave & High St [AM and PM peak hour], Spring St & High St [AM and PM peak hour], Moorpark Ave & Poindexter Ave [AM and PM peak hour], Miller Pkwy & Los Angeles Ave [AM and PM peak hour], and SR 23 SB Ramps & Los Angeles[AM and PM peak hour]), would function below the LOS C performance objective.

As a result, a **Condition of Approval** will be required to ensure that traffic conditions in the Project area would remain consistent with the Goals and Policies identified in the **City of Moorpark General Plan – Circulation Element**. This **Condition of Approval** will require that the Project Applicant shall pay an **Area of Contribution** (**AOC**) fee based upon the City's currently adopted **AOC** fee schedule (as indicated in the Development Agreement for the Project). The **AOC** fee for each individual dwelling unit shall be paid prior to issuance of a certificate of occupancy for that unit. With the payment of the **AOC** fees, which are intended to be used by the City to fund roadway improvements as identified in the City's Capital Improvement Program (CIP) list, the Project would be consistent with the Goals and Policies identified in the City of Moorpark General Plan – Circulation Element[5].

Roadway Standards

Goal 3: Adopt and maintain a set of roadway standards and transportation system design criteria which supports and maintains the desired character of the City of Moorpark.

5 The City would update the current Capital Improvement Program (CIP) list to include and address the specific improvements identified in the TIA and STA for implementation of the Proposed Project.

Policy 3.2: Planting and substantial landscaping shall occur along major arterials to mitigate visual impacts and erosion problems.

Policy 3.3: Roadways in hillside areas shall not have a significant, adverse impact on the natural contours of the land; grading for streets shall be minimized; and harsh cut slopes which may not heal into natural appearing surfaces shall be avoided.

Policy 3.4: New collector streets in hillside areas shall be required to have curb and gutter and graded shoulders, and on-street parking shall be prohibited, as necessary, in order to provide extra safety.

Policy 3.5: Private streets shall be required to be improved to public street standards prior to dedication to the City.

Policy 3.6: The use of landscaped medians on arterial streets shall be encouraged in an effort to preserve the image of the community.

Policy 3.7: Rural and hillside road standards shall be developed, including standards for landscaping, levels of service, and road widths.

Goal 3 Plan Implementation

Consistent. The proposed circulation plan for the Project is designed to implement the General Plan Circulation element and to comply with the City of Moorpark's standards and design criteria. Components of the access plan are illustrated on **Figure 2.0-3**. All "named" streets on **Figure 2.0-3** (including "A" Street) would be public and all other streets would be private. The primary access to the Plan area would be provided via extensions of Casey Road and High Street to the west and a connection to North Hills Parkway, a planned arterial. The proposed Plan incorporates several roadway improvements in addition to roadways internal to each Planning Area. These roadways include (1) dedication of right-of-way and construction for North Hills Parkway; (2) dedication of the Casey Road right-of-way and roadway construction; (3) dedication of the "A" Street right-of-way and roadway construction, (4) dedication of the on-site High Street right-of-way and on-site and off-site roadway construction, (5) dedication of Meridian Hills Drive right-of-way and roadway construction; and (6) dedication of the Gabbert Road right-of-way and roadway construction.

Transit System

Goal 4: Provide a public transportation system which serves the needs of persons living in and/or working in the City of Moorpark.

Policy 4.2: Proposed developments shall include transit facilities, such as bus benches, shelters, pads or turn-outs, where appropriate, in their improvement plans, or as needed in proximity to their development.

Goal 4 Plan Implementation

Consistent. The Specific Plan will be reviewed by the local transit authorities to evaluate transit needs. The Specific Plan will incorporate bus stops at appropriate locations to facilitate transit service between the planning area, the City and the region at the directions of the transit authority.

Bicycle and Pedestrian Facilities

(Refer to **Figure 3.15-4 City of Moorpark Circulation Element – Bikeway Element**)

Goal 5: Provide a citywide system of safe, efficient, and attractive bicycle and pedestrian routes for commuter, school, and recreational uses.

Policy 5.1: New development and redevelopment projects shall be required to include safe, separate, and convenient paths for bicycles and pedestrians so as to encourage these alternate forms of non-polluting transportation.

Policy 5.2: Plans for bicycle and pedestrian facilities shall give priority to providing continuity and closing gaps in the bikeway and sidewalk network.

Policy 5.3: Proposed residential, commercial, and industrial developments shall be required to include bikeways in their street improvement plans, consistent with the Circulation Element Bikeway Network Plan, and to construct the bicycle paths, or lanes, or routes as a condition of project approval.

Policy 5.4: Development projects shall be required to participate in the funding of planned bikeways which would allow employees to utilize bicycles as an alternative to automobiles.

Policy 5.5: The provision and maintenance of off-street bicycle paths shall be encouraged.

Policy 5.6: Bicycle racks shall be required, and storage facilities shall be encouraging at new or modified public, commercial, and industrial building sites.

Policy 5.7: The installation of sidewalks shall be required for all new roadway construction and significant reconstruction of existing roadways, with the exception of hillside areas. If installation of sidewalks in hillside areas would result in significant grading impacts or a safety concern, special consideration shall be given to either eliminating the need for sidewalks or requiring along one side of the street only.

Policy 5.8: Along arterial and collector roadways, requiring the use of meandering sidewalks or the provision of landscaping between the curb and sidewalk shall be given consideration for all new projects proposed in commercial and industrial areas.

Policy 5.9: The design of unobstructed sidewalks, when included as part of roadway improvement plans, shall follow accepted traffic engineering practice.

Policy 5.10: The installation of appropriately located handicapped ramp curb-cuts shall be required for all new roadway construction and significant reconstruction of existing roadways.

Goal 5 Plan Implementation

Consistent. The design of the Specific Plan includes ADA compliant sidewalks, and dedicated bicycle lanes within appropriate roadway designs and provides an integrated trail system with improved trail heads to facilitate pedestrian and bicycle uses. Major roadways through the development will be landscaped with native and adaptive plant materials and maintained by the HOA. Specifically, North Hills Parkway would be developed as a four-lane road, consisting of two vehicle-travel lanes plus bike lanes (in each direction) with a total right-of-way corridor dedication width of 200 feet with controlled access and restricted parking. A 14-foot wide landscaped median would be provided. The roadway also includes a 14-foot wide parkway section. The north side of the parkway would provide for a 12-foot wide multi-use trail. Bike racks will be installed at all active park and recreation areas.

Equestrian Facilities

(Refer to **Figure 3.15-5 City of Moorpark Circulation Element – Equestrian Trail Network**)

Goal 6: Provide equestrian trails for recreational use.

Policy 6.1: New development projects shall provide equestrian trail linkages to regional parks and to regional trail systems consistent with the Circulation Element Equestrian Trail Network Plan.

Policy 6.2: New residential developments shall be encouraged to provide equestrian paths.

Policy 6.3: Multi-use equestrian, bicycle, and pedestrian trails shall be encouraged wherever feasible.

Goal 6 Plan Implementation

Consistent. The Specific Plan provides for an interconnected system of public multi-use trails throughout the Project area open spaces with links to adjacent equestrian uses and local and regional trails.

Transportation Demand Management

Goal 7 Develop and encourage a transportation demand management system to assist in mitigating traffic impacts and in maintaining a desired level of service on the circulation system.

Policy 7.1: To reduce energy consumption, noise pollution and air pollution, employment generating developments shall provide incentives to employees to utilize alternatives to the conventional automobile, such as walking, bicycles, carpools, vanpools, buses, and commuter rail.

Policy 7.3: Alternate forms of public and private transit which give routing, scheduling and planning priority to the work force, youth, handicapped, senior citizens and shoppers shall be provided to the extent feasible.

Goal 7 Plan Implementation:

Consistent. The Hitch Ranch Specific Plan includes bikeways and trails that will encourage the use of alternative transportation by connecting to the City's bike and trail system. Additionally, the Project will provide housing in close proximity to transit (bus and Metro) and employment opportunities.

Open Space, Conservation, & Recreation Element

The City of Moorpark's Open Space, Conservation and Recreation (OSCAR) Element seeks to maintain the quality of life for residents through the management of open space and natural resources. Specifically, the Goals are:

Goal 1 Preserve and enhance the unique aesthetic and visual qualities of Moorpark as a city with scenic topographic features and elements that promote the quality of life that Moorpark citizens pursue.

Policy 1.1: Protect the scenic viewsheds both to and from the City of Moorpark. This shall include those views extending north to the Santa Susana Mountains south to Tierra Rejada Valley. This will extend to any new development and to any future renovations and additions that may potentially obscure a viewshed.

Policy 1.2: Study, monitor and link the existing Greenbelt Agreement Area to include landscaped arterial roadways as entrance ways to the city, bikeways, equestrian paths and hiking trails, to create a network of aesthetically pleasing links into and around the City.

Policy 1.3: Develop an architectural and landscape architectural design theme throughout the City that will serve as a guideline and a functional expression to promote the unique aesthetic and visual qualities through future developments.

Policy 1.5: Explore with SCE and local utilities the potential to underground existing above-ground lines.

Goal 1 Plan Implementation

Consistent. Consistent with General Plan Goals and Policies, Hitch Ranch will concentrate development in proximity to existing infrastructure, roadway and public services and will retain significant open space. The Specific Plan permanently preserves approximately 75 acres of open space. Development will not visually dominate ridgelines. Consistent with the Specific Plan, development is planned to respect view sheds and natural open spaces to the extent possible; all proposed development is to occur proximate to where other suburban land uses already exist. The Plan includes private recreation areas, greenbelts, and public multi-use trails connecting to local and regional trails in the surrounding hills. he architecture at Hitch Ranch will reflect simple traditional building shapes and forms and gable roofs. The use of a variety of exterior materials including stucco, lap siding, board and batten and manufactured

stone will be composed to provide distinctive appearances to the residences and the community building. Use of trim elements such as simple railings, knee braces and exposed rafter tails will contribute to visual interest. While the primary architectural style is traditional, early California architecture is also represented and will use stucco exterior, tile roofs, exposed rafter tails, wood trim elements and arches that reflect Spanish design influences. Residences have been designed to include a defined and welcoming entry to each residence. The Specific Plan will underground all new utilities to the extent feasible.

Goal 2 Acquire, provide and maintain public parkland for both passive and active use that is equally accessible to the community on a neighborhood, community and regional basis.

Policy 2.2: Encourage and ensure equal access to parklands for all residents, including the young, handicapped and elderly.

Policy 2.3: Encourage the development and provision of recreational activities that are both active and passive; e.g., hiking, biking, running, sightseeing, swimming.

Policy 2.4: Coordinate among all public and private organizations to eliminate duplication of recreational services and opportunities.

Policy 2.5: Provide recreational/leisure parklands at the standards set in the Moorpark Parks and Recreation Master Plan.

Goal 2 Plan Implementation

Consistent. The Specific Plan provides for extensive private neighborhood recreational facilities. In addition, approximately 14 acres of active and passive use public park areas are proposed along the High Street extension area of the Specific Plan as well as over 5.5 miles of multi-use trails.

Goal 3 Ensure the health, safety and general welfare of the public through designating land uses that will minimize the risk of danger to the public.

Policy 3.1: In areas designated for flood control purposes, promote the use of the area for passive recreation activities, (e.g., hiking, fishing, bike riding) and reserve in open space use until the land can be used for a purpose.

Goal 3 Plan Implementation

Consistent. The Specific Plan provides for roadway connections creating multiple fire safety emergency routes for the northern portion of the city. The plan complies with all recently adopted CalFire and Ventura County Fire Department design standards. The incorporation of storm water detention basins reduces flooding potential downstream of the Specific Plan area. Flood control areas will be used for passive and active recreation areas.

Goal 4 Preserve and maintain the physical and biological environment from future growth-related degradation. In those areas where degradation is inevitable, ensure the restoration of affected areas.

Policy 4.1: Cooperate and participate in regional air quality management plans, programs, enforcement measures and mitigation measures designed to reduce and/or minimize the amount of primary and secondary air pollutants.

Policy 4.2: Conserve and protect water quality supplies through cooperative efforts with the Ventura County Water Conservation Plan and any future regional water quality and water supply plans and programs that may be instrumental in reduction water quality-related programs.

Policy 4.3: Conserve, preserve and enhance the quality of biological and physical environments throughout the City of Moorpark. Require restoration of those areas unsatisfactorily maintained or subsequently degraded.

Policy 4.4: Protect agricultural areas from future development. This policy applies to those that are agriculturally productive and/or have beneficial qualities for designated use as open space corridors, existing viewsheds or open space.

Goal 4 Plan Implementation

Consistent. The Specific Plan includes mitigation measures to reduce and minimize the amount of primary and secondary air pollutants, and would implement all VCAPCD Construction Control Measures during Project construction. the establishment of permanent open space areas within the planning area. Additionally, the Specific Plan includes water quality treatment and regional storm water detention facilities to aid in preserving water quality. The Specific Plan includes mitigation measures to

protect biological resources, including protected plant and animal species, and includes a Native Habitat Restoration Plan.

As discussed above, in section **3.10.1, Existing Conditions**, the loss of agriculture resources related to the Proposed Project is limited to Farmland of Local Importance and grazing lands, and does not include Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Further, the proposed project would not conflict with an existing Williamson Act contract. While the potential for significant impacts due to the loss of farmland exists, there is a history of failed farming activities on the property. As shown on **Figure 3.10-1**, the Farmland of Local Importance consists of fragmented, scattered segments of low-lying land which historically has been susceptible to frost, resulting in failure of tree crops in the period between 1930 and 1960. Dry farming has not been sustainable for the same reason, and row crops are not economically viable on this soil type within these irregular-shaped farmland units. There are no active wells in operation on the subject property. Grazing of the property is not an economically viable land use as the property cannot support year-round grazing on a commercial scale.

Goal 5 Enhance and encourage communication channels throughout the community to provide up-to-date information on environmental issues and opportunities.

Policy 5.1: Develop a public information program that can: (1) educate community residents as to the nature of the issues, opportunities for public input and dates and times of public participation meetings, hearings, workshops, etc.; and (2) respond to current local issues and problems.

Policy 5.2: In cooperation with gas and electric utilities, prepare public-information releases regarding the value of energy conservation efforts, current technology in home energy-saving techniques and, when economically feasible, encourage use of passive solar energy plans and programs for home and business use.

Goal 5 Plan Implementation

Consistent. The Applicant maintains a project website and has an outreach program to encourage community participation. Additionally, the City's discretionary review process includes opportunities for public input and information.

A pre-construction Worker Environmental Awareness Program (WEAP) training shall be conducted for all construction employees. Prior to the start of construction activities, the WEAP shall be presented to inform construction supervisors, workers, and inspectors of sensitive resources that have a moderate to

high potential of occurrence on the project site, to explain their importance and sensitivity, to review regulatory protections afforded to these resources, and to describe the project design features and mitigation measures adopted to avoid and reduce impacts. Training shall identify individual responsibilities regarding these resources, and communication procedures should sensitive resources exist or be found in the project area.

A brochure will be prepared by the development team and distributed to all home buyers that explains the purpose and sensitivity of the biological mitigation area and reasons why residents and their pets are discouraged from using this area. Signage will also be provided at the entrance of trails that are nearby sensitive habitat areas to notify users of the nature of the area and it's sensitivity.

Goal 6 Maintain and enhance the open space and designated non-growth areas for conservation, agriculture, ranching, recreation, leisure, and aesthetic purposes.

Policy 6.2: Maintain open space lands that are well suited to their intended uses and that will result in the most efficient use of land. All such lands should be designed and managed for the convenience, health, safety and pleasure of intended suers and should represent positive examples of open space planning and energy conservation.

Goal 6 Plan Implementation

Consistent. The Specific Plan preserves approximately 75 acres as permanent open space, approximately 14 acres of public parks, along with multiple private recreation areas, and provides over 5.5 miles of multi-use trails.

Housing Element

Consistent. The City of Moorpark's General Plan includes a state-approved Housing Element that provides for fair and equal housing opportunities and inclusionary affordable housing. The Housing Element of the Moorpark General Plan anticipates development of 755 dwelling units within the Specific Plan Area, including a 23.44-acre portion of the Specific Plan that was rezoned to RPD-20-U in 2013.

Goal 1.0: Assure the quality, safety, and habitability of existing housing and the continued high quality of residential neighborhoods.

Policy 1.1 Continue to monitor and enforce building and property maintenance code standards in residential neighborhoods.

Policy 1.2 Continue to provide City public safety services, infrastructure maintenance, graffiti removal, and other public services to maintain the quality of the housing stock, neighborhoods, and the environment.

Policy 1.3: Promote increased awareness among property owners and residents of the importance of property maintenance to long-term housing quality.

Goal 1 Plan Implementation

Consistent. Hitch Ranch is a new residential neighborhood that includes provisions for adequate infrastructure and improvements as described In the Specific Plan. The design guidelines and standards established by the Plan will ensure quality development and protection of the environment consistent with General Plan goals. The establishment of a Homeowner's Association (HOA) will ensure that fuel modification and other fire protection systems are maintained.

The Hitch Ranch Homeowner's Association will provide Hitch Ranch residents with information on, and encourage them to practice, and implement a "Ready, Set, Go!" (Ventura County Fire Department 2016) approach to site evacuation. The "Ready, Set, Go!" concept is widely known and encouraged by the state of California and most fire agencies, including the VCFD. Pre-planning for emergencies, including wildfire emergencies, focuses on being prepared, having a well-defined plan, minimizing potential for errors, maintaining the site's fire protection systems, and implementing a conservative (evacuate as early as possible) approach to evacuation and site uses during periods of fire weather extremes.

Goal 2: Provide residential sites through land use, zoning and specific plan designations to provide a range of housing opportunities.

Policy 2.1 Identify adequate sites which will be made available and zoned at the appropriate densities, to facilitate Goals set forth in the 2014-2021 RHNA.

Policy 2.2 Ensure residential sites have appropriate public services, facilities, circulation, and other needed infrastructure to support development.

Goal 2 Plan Implementation

Consistent. Hitch Ranch is a residential development that includes multiple regional public benefit improvements. A number of community housing issues will be addressed through Implementation of the

Hitch Ranch Specific Plan, including affordable and market rate multi-family housing, smaller single-family housing for first-time home buyers, move-up housing, and executive housing. Regional public benefits address park needs, regional circulation and safety issues and stormwater capacity. Hitch Ranch will be served by Infrastructure, circulation and facilities Improvements as described in the Specific Plan.

Residential development will include a total of 755 housing units: 427 Single Family Units, 328 Attached Multi-Family Units (including 135 Affordable Rental Apartment Homes). The range of housing types provides housing options. To fulfill the Housing Element requirement for affordable housing, the City of Moorpark will receive a donation of an adjacent 23.44-acre graded parcel of land (zoned RPD-20U-N-D) with all utility services at the site, enabling the City of Moorpark to develop the site as an affordable multi-family housing project under a separate process at a future date. The total number of dwellings will make a significant contribution to towards the City's Regional Housing Needs Allocation obligation.

Goal 3: Expand and protect housing opportunities for lower income households and special needs groups.

Consistent. Residential development will include 135 Affordable Rental Apartment Homes. Further, to fulfill the Housing Element requirement for affordable housing, the City of Moorpark will receive a donation of an adjacent 23.44-acre graded parcel of land (zoned RPD-20U-N-D) with all utility services at the site, enabling the City of Moorpark to develop the site as an affordable multi-family housing project under a separate process at a future date. The development of this new housing would increase the supply of housing for lower income groups.

Safety Element

Goal 1: Minimize the potential damage to structures and loss of life that could result from earthquakes.

Policy 1.1: Continue to implement Uniform Building Code seismic safety standards for construction of new buildings, and update the City's codes as needed in response to new information and standards developed at the State level.

Policy 1.2: Require the preparation of detailed geologic studies for any development proposal within seismic hazard zones and liquefaction hazard areas.

Policy 1.6: Participate in local, county, and State-sponsored earthquake preparedness programs.

Policy 1.7: Continue to monitor groundwater levels in all potential liquefaction areas. If the water levels reach within 40 feet of the surface, the City Engineer shall require appropriate mitigation to alleviate the hazard to large structures as necessary.

Goal 1 Plan Implementation

Consistent. All development in the Hitch Ranch Plan Area will comply with applicable Uniform Building and Fire Code requirements. Mitigation is included such that the applicant shall conduct additional geotechnical work, consisting of soil borings and laboratory analysis, within the areas of the structures to better define the severity of liquefaction, settlement, and expansiveness conditions. Once the severity of these soil characteristics are determined, then appropriate measures contained within the geotechnical reports will be incorporated into the design of the project. Feasible techniques to mitigate any defined liquefaction, settlement, and expansive soils could include, but would not be limited to, (1) in-situ densification; (2) vibro replacement; (3) compaction grouting or chemical stabilization; or (4) deep foundations and self-supporting structural slabs, (5) over-excavation and replacement with properly compacted fill, and/or (6) design of foundation systems with appropriate thickness and reinforcing.

Goal 3: Protect public and private properties from geologic hazards associated with steep slopes, unstable hillsides, and subsidence.

Policy 3.1 Reduce the risk of impacts from geologic hazards by applying property engineering, building construction, and retrofitting requirements to the development process.

Policy 3.2 Require that slope stability analyses be conducted for new development in hillside areas.

Policy 3.3 Require that hillside developments incorporate measures that mitigate slope failure potential and provide for long term slope maintenance.

Policy 3.4 Participate in regional measures aimed at reducing the risk of subsidence throughout the City of Moorpark, the sphere of influence, and area of interest.

Goal 3 Plan Implementation

Consistent. All development in the Hitch Ranch Plan Area will comply with applicable Uniform Building Code requirements. Mitigation is included such that the applicant shall conduct additional geotechnical

work, consisting of soil borings and laboratory analysis, within the areas of the structures to better define the severity of liquefaction, settlement, and expansiveness conditions. Once the severity of these soil characteristics are determined, then appropriate measures contained within the geotechnical reports will be incorporated into the design of the project. Feasible techniques to mitigate any defined liquefaction, settlement, and expansive soils could include, but would not be limited to, (1) in-situ densification; (2) vibro replacement; (3) compaction grouting or chemical stabilization; or (4) deep foundations and self-supporting structural slabs, (5) over-excavation and replacement with properly compacted fill, and/or (6) design of foundation systems with appropriate thickness and reinforcing.

Goal 5: Reduce the risk to the community from hazards related flooding.

Policy 5.1: Continue to participate in the National Flood Insurance Program.

Policy 5.2: Ensure that future projects include mitigation for hydrological impacts. Mitigation can include catch basins, stormwater pipelines, and detention basins.

Policy 5.3: Consider floodway management design that includes areas where stream courses are left natural or as developed open space.

Policy 5.4: Improve flood control structures, including modification of the Walnut Canyon and Gabbert Canyon debris basins, addition of new detention basins, channel reconstruction, and diversion systems.

Policy 5.5: Encourage property owners with buildings located within a Special Flood Hazard Area to have all components of the property's electrical system raised at least one foot above the 100-year flood level.

Goal 5 Plan Implementation

Consistent. A Hydrology Study was included in the Environmental Impact Report required for the Specific Plan. The Study determined the project does not create a flood hazard. Refer to **Section 3.9, Hydrology and Water Quality** for further analysis regarding flood hazards and storm drainage infrastructure, including proposed debris and detention basins to be established on the project site.

All development in the Hitch Ranch Plan Area will comply with applicable flooding, wildfire, and geologic safety code requirements. All residential development within the project is located outside of FEMA Flood Hazard Areas.

Goal 6: Reduce the risk to the community from hazards related to wildfires and structural fires.

Policy 6.1 Continue to implement the fire hazard reduction goals and policies set forth in the Ventura County General Plan.

Policy 6.2 Develop education and mitigation strategies that focus on enhanced hazards in the months of August, September, and October, when dry vegetation and Santa Ana winds coexist.

Policy 6.3: Continue to require noncombustible roofing materials for new and replacement roofing.

Policy 6.4: Continue a public education through the County Fire Protection District's Community Education/Public Information Divisions to inform as to how they can help reduce fire hazards.

Goal 6 Plan Implementation

Consistent. Wildfire hazards would be minimized through fuel modification and other measures as set forth in the Public Services and Design Guidelines sections of the Specific Plan, and the Fire Protection Plan. Refer to **Section 3.18, Wildfire** for further information and analysis regarding wildfire hazards.

The Hitch Ranch Homeowner's Association will provide Hitch Ranch residents with information on, and encourage them to practice, and implement a "Ready, Set, Go!" (Ventura County Fire Department 2016) approach to site evacuation. The "Ready, Set, Go!" concept is widely known and encouraged by the state of California and most fire agencies, including the VCFD. Pre-planning for emergencies, including wildfire emergencies, focuses on being prepared, having a well-defined plan, minimizing potential for errors, maintaining the site's fire protection systems, and implementing a conservative (evacuate as early as possible) approach to evacuation and site uses during periods of fire weather extremes.

Goal 7: Improve the ability of the City to respond effectively to natural and human-caused emergencies.

Consistent. The roadway improvements included in the Hitch Ranch Specific plan would provide additional emergency access and evacuations points for Walnut Canyon School, the Meridian Hills

neighborhood and the Gabbert Road area, as well as the Specific Plan Area, improving the ability of first responders to respond effectively to natural and human-caused emergencies.

Noise Element

The Noise Element of the General Plan seeks to avoid, minimize or mitigate adverse noise conditions within the City of Moorpark. The specific Goals of the Noise Element include:

Goal N-1: Protect the health, safety, and general welfare of the public from adverse noise impacts.

Policy N-1.1: Identify sound attenuation measures that can be applicable to transportation related noise impacts.

Policy N-1.2: Incorporate noise considerations into land use planning decisions to prevent or minimize future noise and land-use incompatibilities. The analysis of traffic and other noise sources shall consider future conditions at General Plan build out.

Policy N-1.3: Provide for reduction in noise impacts from non-transportation sources through adoption of a Noise Ordinance, which is intended to protect people from noise generated on adjacent properties.

Policy N-1.4: Require stationary noise sources to limit noise to levels that do not interfere with adjacent uses.

Policy N-1.5: Require new projects to contribute to the mitigation of off-site traffic noise impacts to the extent that these impacts are entreated by the proposed project.

Policy N-1.6: Limit the impact of nuisance noise sources upon residential areas.

Goal N-1 Plan Implementation

Consistent. The project will comply with the applicable General Plan Goals and Policies for noise reduction and with applicable City Noise Ordinances requirements. The new residential uses will increase noise levels in the vicinity of the project site due to vehicle trips that would be generated by the proposed project and by outdoor activities in open space and recreation areas typical of residential neighborhoods.

Temporary increases in ambient noise levels are expected during construction activities and appropriate mitigations to ensure compliance with City noise requirements will be prescribed and adhered to. Noise mitigation measures, as identified in the EIR, are included in conformance with General Plan requirements.

Consistency Analysis Conclusions

As discussed above, with the proposed General Plan Amendments, the Hitch Ranch Specific Plan project would be substantially consistent with the goals and policies of the City of Moorpark General Plan Land Use, Circulation, Open Space, Conservation and Recreation (OSCAR), Safety, Housing, and Noises Element and impacts would be less than significant.

City of Moorpark Zoning Ordinance

As a part of the Hitch Ranch Specific Plan, zoning designations have been proposed for the site. The proposed zoning designations allow for those land uses proposed by the Hitch Ranch Specific Plan. These designations are proposed to ensure consistency with the General Plan land use designation (Hitch Ranch Specific Plan). It is the City's intent to adopt the Specific Plan, including the zoning ordinance incorporated therein, by resolution. The City's zoning ordinance would take precedence only when the Specific Plan, and the zoning ordinance incorporated therein, is silent on any zoning issue.

Hitch Ranch Specific Plan (SP 2019-01)

Notwithstanding the previous discussion, the project requires the adoption of the Hitch Ranch Specific Plan, which has been prepared in compliance with California Government Code Article 8, Section 65450 et seq., and all other applicable state and City policies. The approval of the Hitch Ranch Specific Plan would establish the framework for development of the land, including development standards, design guidelines, phasing, and infrastructure requirements. The adoption of the revised Hitch Ranch Specific Plan would require the following actions by the City of Moorpark:

General Plan Amendment (GPA No. 2020-01)

Adoption of the revised Specific Plan would require three Amendments to elements of the City of Moorpark General Plan (refer to **Figure 3.10-2, City of Moorpark General Plan Existing and Proposed**). The Amendments are:

- **Circulation Element:** Amend to include the extension of High Street to Gabbert Road. Under the current General Plan Circulation Element High Street terminates east of Hitch Ranch at Moorpark Avenue. The High Street roadway presently extends westerly approximately 700 feet beyond Moorpark Avenue to provide access to the United States Post Office. The additional extension to

connect to the Hitch Ranch property will provide a secondary access point for the Post Office and improve east/ west circulation within the portion of the city north of the Union Pacific Railroad tracks. High Street will be built as a two-lane collector roadway with traffic calming roundabouts within the Hitch Ranch Specific Plan. The Circulation Element is also to be amended to reduce North Hills Parkway from a six-lane arterial roadway to a four-lane arterial roadway, along with the deletion of a traffic signal at North Hills Parkway and Gabbert Road. The current General Plan Circulation Element also shows a conceptual alignment for Casey Road that would not be feasible due to the hilly landforms of the Hitch Ranch property. The current Circulation Element Casey Road conceptual alignment also terminates on the west end at an impractical location too near to the intersection with the currently-designated six-lane and signalized North Hills Parkway. With the proposed Circulation Element Amendment both Street "A" and Meridian Hills Drive will be added as Local Collector roads originating at Walnut Canyon Road on the north and terminating at High Street extension on the south. Casey Road will terminate on the west at Street "A". These General Plan Circulation Element Amendments will create additional routes of vehicle circulation through interconnection that was not anticipated at the time that the 1992 General Plan Circulation Element was last updated. Refer to **Figure 3.10-3, City of Moorpark General Plan Circulation Element, Existing and Proposed.**

- **Land Use Element**: Amend to include the addition of 14 acres of Public Parkland, creating consistency with the existing City of Moorpark Park Master Plan. The three acres of Institutional Use referenced in the General Plan will be deleted.

  Amend for consistency between the State of California (HCD) approved General Plan Housing Element and the City's current Land Use Element of the General Plan to provide for 755 dwelling units within the Specific Plan Area. In June 2009, the City Council authorized the Specific Plan and EIR for Hitch Ranch to analyze 755 dwelling units. In 2014, the State of California approved the City of Moorpark Housing Element with 755 dwelling units within Hitch Ranch. The Specific Plan is based on the 755 dwelling unit land use plan.

Rezoning (ZC 2019-01)

The project requires consideration of a change of zone from Agricultural-Exclusive (AE-40) to Hitch Ranch Specific Plan to establish consistency between the project Zoning and General Plan/Specific Plan land use designations; this includes retaining the designation of approximately 11 acres owned by Southern California Edison in the southwest corner of the Hitch Ranch Specific Plan as "Agricultural-Exclusive" (AE), consistent with City zoning of adjacent Electrical Transmission Corridor land owned by Southern California Edison. Approximately six acres of the Walnut Canyon School property on the

eastern edge of the Hitch Ranch Specific Plan is to remain "Agricultural Exclusive" (AE) consistent with the existing City zoning of this land owned by the Moorpark Unified School District. The approximately 23.44 acres City Donation Parcel will be realigned to the south, and will remain designated "RPD-20U-N-D", consistent with the City of Moorpark Zoning Map (refer to **Figure 3.10-4, City of Moorpark Zoning Existing and Proposed**).

Tentative Tract Map for Tract No 5708 (TTM 2019-01)

The Tentative Tract Map would subdivide the approximately 277.30-acre site into lots to accommodate residential, recreational, drainage basins, and open space uses. The mapping would also include easements, dedications, roadways, utilities and define adjacent off-site improvements required for the Project.

Development Agreement (DA 2019-01)

The agreement between the developer and a city that contains all of the terms and conditions for the maintenance, planning and development of a property, and legally governs the relationship between the agency and developer until the development has been completed.

A development agreement will outline the parameters of development of the project site, and would insure orderly development of the project.

Residential Planned Development Permit(s)

Residential Planned Development Permit(s) would establish the physical site plan layout of each individual Planning Area within the Specific Plan, including street and neighborhood amenity locations, community plot plans, conceptual landscape architecture, architectural elevations and preliminary floor plans.

SOURCE: DPS, August 2021.

FIGURE **3.10-2**

City of Moorpark General Plan Existing and Proposed

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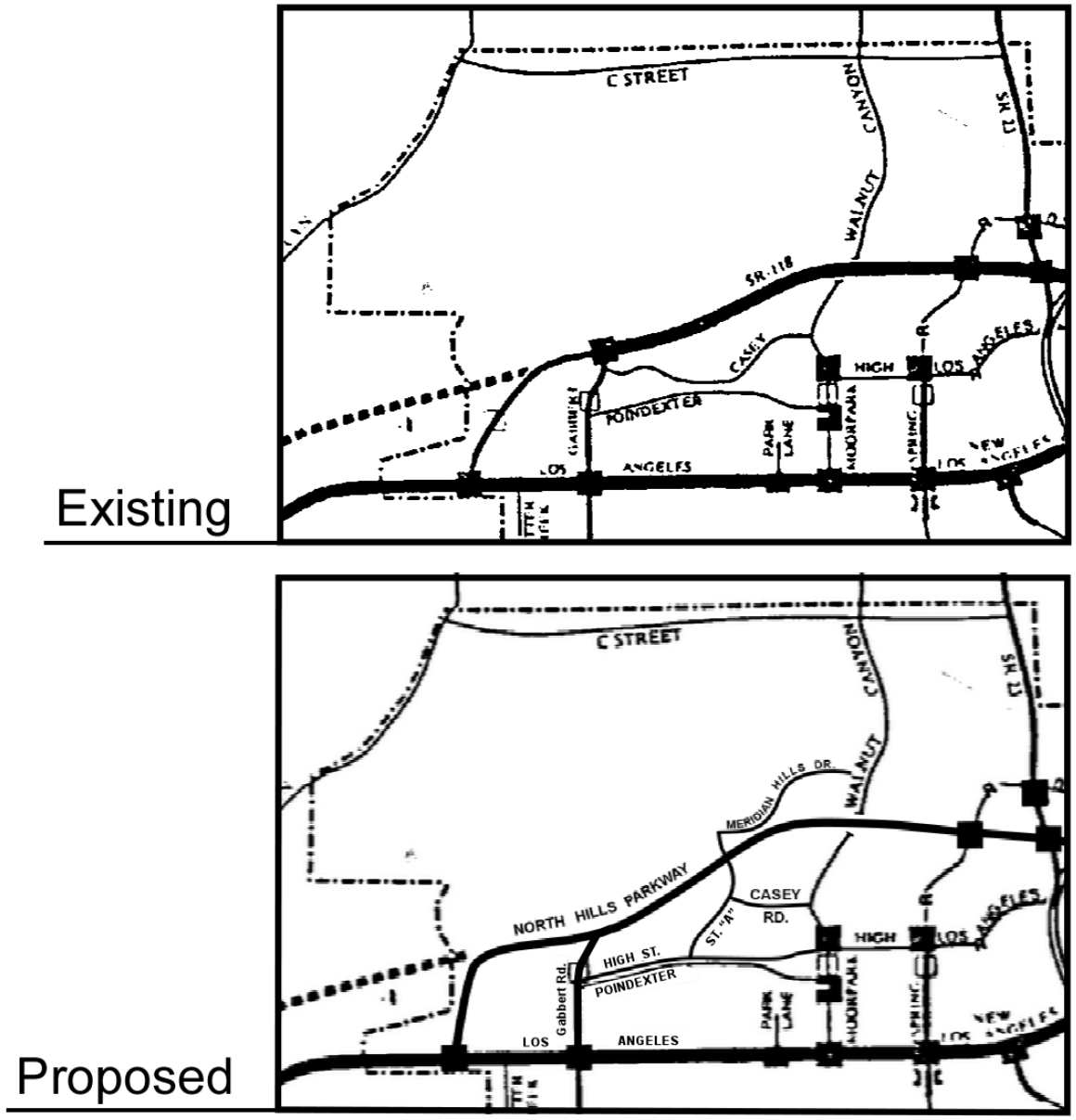

SOURCE: DPS, November 2021.

FIGURE **3.10-3**

City of Moorpark General Plan Circulation Element, Existing and Proposed

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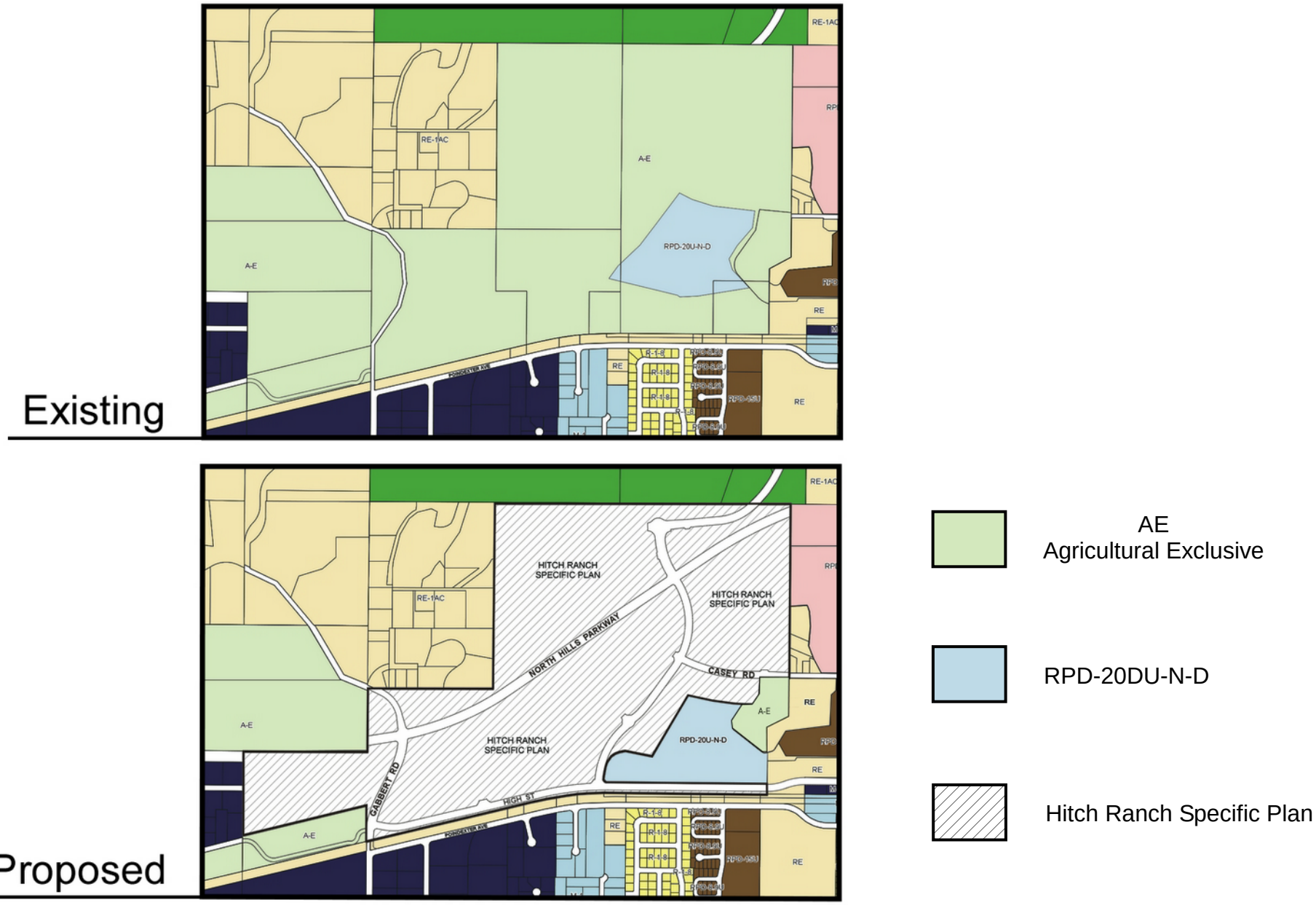

SOURCE: DPS, August 2021.

FIGURE **3.10-4**

City of Moorpark Zoning Existing and Proposed

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3.10.6 CUMULATIVE IMPACTS

On June 3, 2009, the City of Moorpark City Council authorized the inclusion of additional units within Specific Plan Area 1 in order to meet the City's share of the Regional Housing Needs Assessment (RHNA). The proposed land use plan includes sufficient public facilities (i.e., approximately 14 acres of parkland), recreation areas, flood control, and open space components to accommodate up to 755 dwelling units. The revised Specific Plan looks to the *City of Moorpark General Plan* as the fundamental guiding policy for project implementation and, thus, is a site-specific interpretation of the City's General Plan goals. Furthermore, development of North Hills Parkway as part of the proposed project would be considered a public benefit. Therefore, even though modifications to the current General Plan are required, the project is considered substantially consistent with the General Plan goals and policies, and no significant adverse land use impacts are expected.

As with the project, the related projects would be required to comply with relevant land use policies and regulations. Specific related projects within the City of Moorpark would also be constrained by the development limitations provided in the General Plan to ensure orderly growth. Additionally, as analyzed above, given that the project's proposed mix of residential, recreational, and open space uses would be compatible with surrounding land uses, the project would not result in an impact on land use compatibility. Further, while the project, in combination with the related projects, represents a continuing trend of infill development at increased densities, they also would serve to modernize the area and provide sufficient infrastructure and amenities to serve the growing population. Such related projects are not expected to fundamentally alter the existing land use relationships in the community, but rather would concentrate development on particular sites. As such, the combined land use compatibility impacts associated with the project's effect and the effects of other related projects would be less than significant.

3.10.7 MITIGATION PROGRAM

3.10.7.1 Mitigation Measures

The development of the Hitch Ranch Specific Plan project would have less than significant impacts related to land use and planning, no mitigation measures are required.

3.10.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project-specific and cumulative residual impacts related to land use and planning would be less than significant.

3.11 NOISE

INTRODUCTION

The purpose of this noise analysis is twofold: (1) to evaluate the Proposed Project in terms of its design to ensure that it is appropriately planned from a noise perspective, and (2) to evaluate the noise impact of the project on the surrounding (off-site) areas. Noise modeling conducted for the project is contained within **Appendix 3.11** *of this environmental impact report (EIR).*

3.11.1 TERMINOLOGY

3.11.1.1 Characteristics of Noise

Noise is usually defined as unwanted sound. Noise becomes unwanted when it interferes with normal activities, causes actual physical harm, or has adverse effects on health. The definition of "noise" as unwanted sound implies that it has an adverse effect on people and their environment.

Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). The human ear does not respond uniformly to sounds at all frequencies; it is less sensitive to low and high frequencies than to medium frequencies, which correspond with human speech. In response, the A-weighted noise level (or scale) has been developed. It corresponds better with people's subjective judgment of sound levels. This A-weighted sound level is called the "noise level" and is referenced in units of dB(A). Because noise is measured on a logarithmic scale, a doubling of sound energy results in a 3 dB(A) increase in noise levels. However, changes in a noise level of less than 3 dB(A) are not typically noticed by the human ear.[1] A change from 3 to 5 dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise, and a 5.0 dB(A) increase is readily noticeable. The human ear perceives a 10 dB(A) increase in sound level as a doubling of sound.

Noise sources occur in two forms: (1) point sources, such as stationary equipment, loudspeakers, or individual motor vehicles; and (2) line sources, such as a roadway with a large number of point sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6.0 dB(A) for each doubling of distance from the source to the receptor at acoustically "hard" sites and 7.5 dB at acoustically "soft" sites.[2,3] For example, a 60 dB(A) noise level measured 50 feet from a point source at an acoustically hard site would be 54 dB(A) 100 feet from the source and 48 dB(A) 200 feet from

1 California Department of Transportation, *Technical Supplement to the Traffic Noise Analysis Protocol*. September, 2013.

2 Ibid.

3 California Department of Transportation, *Technical Supplement to the Traffic Noise Analysis Protocol*. October, 1998.

the source. Sound generated by a line source typically attenuates at a rate of 3.0 dB(A) and 4.5 dB(A) per doubling of distance from the source to the receptor for hard and soft sites, respectively.[4] Sound levels can also be attenuated by man-made or natural barriers.

Solid walls and berms typically reduce point and line source noise levels by 3 to 23 dB(A).[5] Sound levels for a source may also be attenuated 3 dB(A) by a first row of houses and 1.5 dB(A) for each additional row of houses.[6] Outside to inside noise attenuation provided by typical structures is provided **in Table 3.11-1, Building Noise Reduction Factors.**

Table 3.11-1
Building Noise Reduction Factors

	Noise Reduction - dB(A)	
Building Type	**Window Condition**	**Noise Reduction Due to Exterior of the Structure**
All	Open	10
Light Frame	Ordinary Sash (Closed)	20
	Storm Windows	25
Masonry	Single Glazed	25
	Double Glazed	35

Source: Federal Highway Administration, Highway Traffic Noise Analysis and Abatement Guidance. December 2011.

When assessing community reaction to noise, there is need for a scale that averages varying noise exposure over time and quantifies the result in terms of a single number descriptor. Several scales have been developed that address community noise levels. Those that are applicable to this analysis are the Equivalent Noise Level (L_{eq}) and the Community Noise Equivalent Level (CNEL). L_{eq} is the average A-weighted sound level measured over a given time interval. L_{eq} can be measured over any period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods.

CNEL is another average A-weighted sound level but is measured over a 24-hour period. However, this noise scale is adjusted to account for some individuals' increased sensitivity to noise levels during nighttime hours. A CNEL noise measurement accommodates this sensitivity factor by adding 5 dB to sound levels occurring in the evening from 7:00 PM to 10:00 PM, and 10 dB to sound levels occurring in the nighttime from 10:00 PM to 7:00 AM.

4 California Department of Transportation, *Technical Supplement to the Traffic Noise Analysis Protocol*. September, 2013.

5 Ibid.

6 Ibid.

3.11.1.2 Noise Analysis Methodology

The analysis of the existing and future noise environments presented in this noise impact analysis is based on technical reports, noise prediction modeling, and empirical observations. Noise levels for some stationary activities and equipment were estimated based on available technical reports and literature, which are cited in this report. Noise modeling procedures involved calculating existing and future vehicular noise levels along individual roadway segments in the vicinity of the Proposed Project site. This task was accomplished using the Federal Highway Administration (FHWA) Highway Noise Prediction Model (FHWA-RD-77-108). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by the California Department of Transportation (Caltrans).[7] The Caltrans data show that California automobile noise is 0.8 to 1.0 dB(A) higher than national levels, and that medium- and heavy-truck noise is 0.3 to 3.0 dB(A) lower than national levels.[8] Traffic volumes utilized as data inputs in the noise prediction model were provided by the project traffic engineer in **Section 3.14, Transportation/Circulation**, of this EIR.

Analysis in this section addresses the existing and future noise environments on and off the Proposed Project site.

3.11.1.3 Off-Site Methodology

The assessment of off-site noise levels focuses on how on-site activities and increased traffic levels would impact existing land uses adjacent to, or near, the Project site. This section specifically focuses on impacts to existing noise-sensitive uses, or those uses that would be most sensitive to an increase in noise levels. These uses are discussed later in this noise impact analysis. Noise levels were modeled with and without project traffic to determine those locations at which the project (via increased traffic) may have an impact on existing noise-sensitive uses.

3.11.2 EXISTING CONDITIONS

3.11.2.1 On-Site Noise Levels

The Proposed Project site is located north of Poindexter Avenue and the Union Pacific Railroad tracks roughly between Gabbert Road and Walnut Canyon Road. Automobile traffic on nearby roadways and

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7 Rudolf W. Hendriks, *California Vehicle Noise Emission Levels* (Sacramento, California: California Department of Transportation, January 1987), NTIS, FHWA/CA/TL-87/03.

8 Ibid.

railway traffic are the dominant sources of noise on the Project site. Existing noise levels associated with these railway operations are identified below in **Table 3.11-2, Existing On-Site Railroad Noise Levels.** Other sources of noise heard on the site are relatively low and generally composed of human, motor vehicle, and helicopter (Southern California Edison Helipad) activity on adjacent properties.

3.11.2.2 Existing Ambient Noise Levels

Vehicular traffic is the dominant source of noise affecting all noise-sensitive locations that occur in the vicinity of the Project site. Three off-site noise measurements were taken at nearby sensitive receptors to summarize existing ambient noise levels. These monitoring locations are shown in **Figure 3.11-1, Noise Measurement Locations,** below. Results of the noise monitoring are displayed in **Table 3.11-3, Noise Monitoring Results**, below.

Table 3.11-2
Existing On-Site Railroad Noise Levels

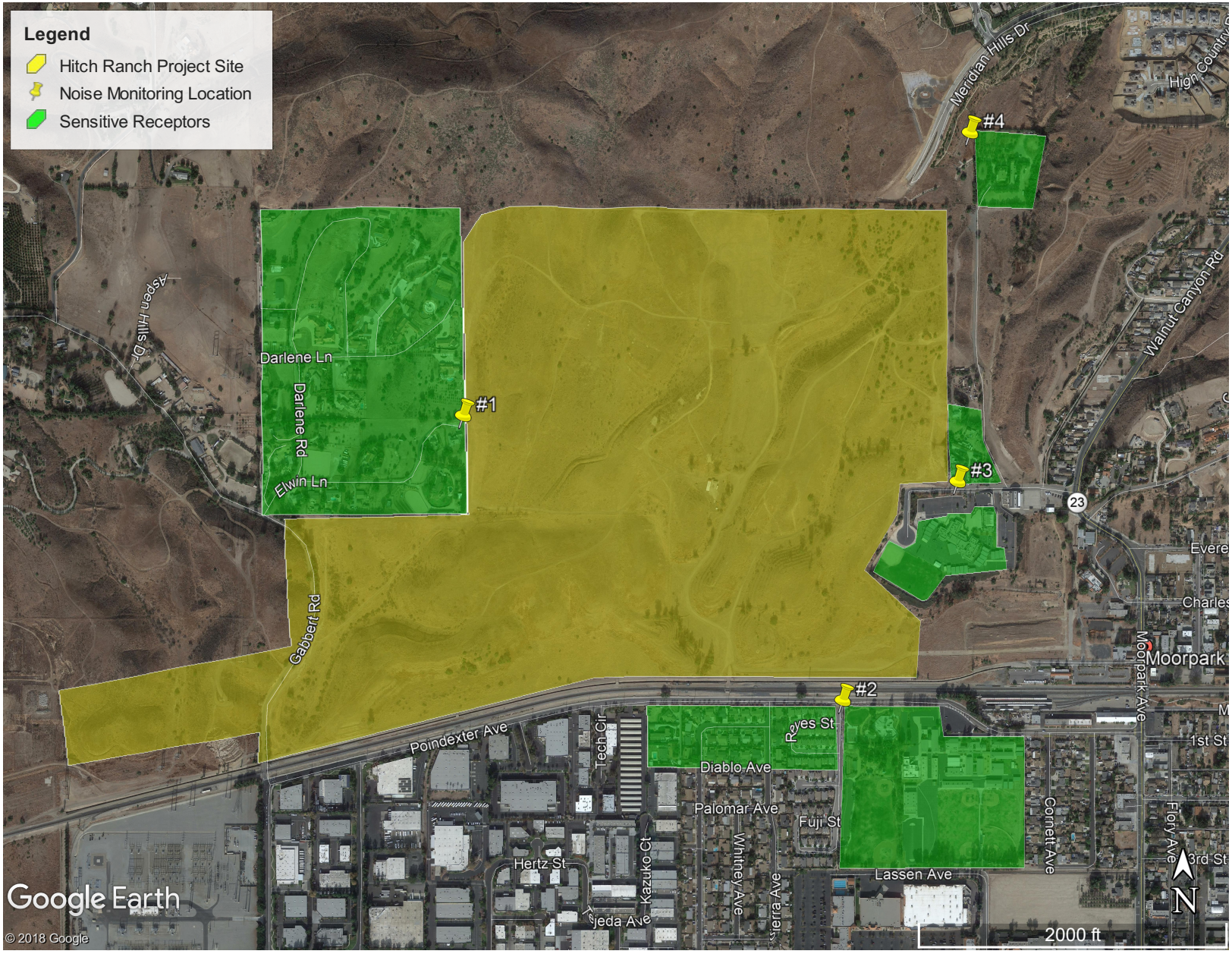
Roadway Segment	CNEL at 75 Feet	Distance from Center of Roadway CNEL Noise Contour 75	70	65	60
Union Pacific Railroad	NA	NA	188 ft	405 ft	872 ft

Source: Moorpark General Plan, Noise Element, (Moorpark, California: City of Moorpark, March 1998), p. A-20.
NA = Data not available.

Table 3.11-3
Noise Monitoring Results

Map Location	Land Use Type	Noise Measurement dB(A) L_{eq}
1	Low Density Residential	50.2
2	Poindexter Park (Adjacent to Chaparral Middle School)	47.9
3	Walnut Canyon Elementary School	52.5

Sound level measurements conducted by Impact Sciences staff, June 6, 2018.



SOURCE: Google Earth, 2018

FIGURE **3.11-1**

IMPACT SCIENCES

Noise Monitoring Locations

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3.11.3 REGULATORY FRAMEWORK

3.11.3.1 Federal Laws and Regulations

Currently, no federal noise standards regulate environmental noise associated with short-term construction or the long-term operations of development projects.

Federal Transit Administration

The Federal Transit Administration (FTA) has published guidance relative to vibration impacts. According to the FTA, non-engineered timber and mason buildings can be exposed to ground-borne vibration levels of 0.2 inches per second without experiencing structural damage, while reinforced concrete, steel, or timber buildings can be exposed to ground-borne vibration levels of 0.5 inches per second.[9]

The FTA has also set standard that address the effect of long-term vibration on human annoyance. Ground-borne vibration levels rarely affect human health. Instead, most people consider ground-borne vibration to be an annoyance that may affect concentration or disturb sleep. The RMS amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration. For residential land uses which experience occasional events of ground-borne vibration or noise, the FTA has established a threshold of 75 VdB. Some commercial buildings, such as auditoriums and theaters have additional vibration and noise annoyance criteria.

3.11.3.2 State Laws and Regulations

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise exposure, and noise insulation.

Though not adopted by law, the State of California General Plan Guidelines 2003, published by the Governor's Office of Planning and Research (2003), provide guidance for the compatibility of projects within areas of specific noise exposure. Acceptable and unacceptable community noise exposure limits for various land use categories have been determined to help guide new land use decisions in California

9 Federal Transit Administration (FTA). 2006. Transit Noise and Vibration Impact Assessment. May.

communities.[10] In many local jurisdictions, these guidelines are used to derive local noise standards and guidance.

California Department of Transportation Vibration Standard

In 2013, the California Department of Transportation (Caltrans) published the Transportation and Construction Vibration Guidance Manual to aid in the estimation and analysis of vibration impacts. Typically, potential building and structural damages are the foremost concern when considering the impacts construction-related vibrations.

Table 3.11-4, Building Damage Vibration Guidelines, summarizes Caltrans' vibration guidelines for building and structural damage.

Table 3.11-4
Building Damage Vibration Guidelines (PPV)

	Significance Thresholds (in/sec PPV)	
Structure and Condition	**Transient Sources**	**Continuous/Frequent/Intermittent Sources**
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New Residential Structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation, 2013

3.11.3.3 Local Plans and Policies

The following goals and policies of the *City of Moorpark General Plan* are applicable to the proposed Hitch Ranch Specific Plan project.

Circulation Element

Policy 7.1: To reduce energy consumption, noise pollution, and air pollution, employment generating developments shall provide incentives to

[10] California Office of Planning and Research (OPR). 2003. General Plan Guidelines, Noise Element Guidelines (Appendix C).

employees to utilize alternatives to the conventional automobile, such as walking, bicycles, carpools, vanpools, buses, and commuter rail.

Noise Element

The City's Noise Element was adopted in 1998.

Goal N-1: Protect the health, safety, and general welfare of the public from adverse noise impacts.

Policy N-1.1: Identify sound attenuation measures that can be applicable to transportation related noise impacts.

Policy N-1.2: Incorporate noise considerations into land use planning decisions to prevent or minimize future noise and land use incompatibilities. The analysis of traffic and other noise sources shall consider future conditions at general plan build out.

Policy N-1.4: Require stationary noise sources to limit noise to levels that do not interfere with adjacent uses.

Policy N-1.5: Require new projects to contribute to the mitigation of off-site traffic noise impacts to the extent that these impacts are generated by the proposed project.

Policy N-1.6: Limit the impact of nuisance noise sources upon residential areas.

3.11.4 THRESHOLDS OF SIGNIFICANCE

The following thresholds for determining the significance of impacts related to noise are contained in the environmental checklist form contained in Appendix G of the most recent update of the *California Environmental Quality Act (CEQA) Guideline*s. The CEQA Guidelines ask whether the project would result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Generation of excessive groundborne vibration or groundborne noise levels.

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

The CEQA Guidelines do not provide a definition for "substantial increase" in noise and they do not provide a threshold of significance for potential noise or vibration impacts. Therefore, the following thresholds of significance were developed for this noise analysis based upon the General Plan Noise Element discussed previously in this EIR section. These thresholds apply to both project impacts and cumulative impacts and are as follows:

Off-site impacts from on-site specific plan activities, both temporary and long-term, are assessed based on compliance with the City of Moorpark Noise Ordinance. Any activity on private property must comply with the noise ordinance.

Long-term, off-site impacts from traffic noise generated by the specific plan are assessed using two criteria. Both criteria must be met for a significant impact to be identified. First, project traffic must cause a substantial noise level increase (greater than 3 dB) on a roadway segment adjacent to a noise-sensitive land use. Second, the resulting future with project noise level must exceed the criteria level for the noise-sensitive land use (e.g., residential uses, hospitals). In this case, the exterior criteria level is 65 CNEL and the interior level is 45 CNEL for sensitive land uses.

Neither City's Noise Element nor Municipal Code contains a numerical threshold to identify the point at which a vibration impact is deemed perceptible. The FTA has published guidelines for assessing the impact of groundborne vibration associated with construction activities, which have been applied by other jurisdictions to other types of projects. The Federal Transit Administration measure of the threshold of architectural damage for conventional sensitive structures (e.g., residential units) is 0.2 in/sec PPV.[11] The vibration threshold of perception is 0.01 in/sec PPV. In the absence of a City standard, this is being been used in this EIR to assess construction vibrations impacts.

The Initial Study for the Hitch Ranch project concluded that impacts related to safety or excessive noise regarding a private helipad located approximately 250 feet south of the project area would be less than significant. This impact is not further discussed in this EIR.

11 US Department of Transportation, Federal Administration, Office of Planning and Environment, Transit and Vibration Impact Assessment, FTA-VA-90-1003-06, May 2006.

3.11.5 PROJECT IMPACTS

Impact NOI-1 **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**

Less than Significant with Mitigation

Construction

Development of the Proposed Project would require site preparation (i.e., land clearing and grading), subsurface excavation, and construction (i.e., infrastructure, buildings, and cleanup) of the proposed new features. These activities typically involve the temporary use of heavy equipment such as tractors, dozers, motor graders, loaders, and concrete mixers. Trucks would be used to deliver equipment and building materials, and to haul away waste materials. Smaller equipment such as pneumatic tools, saws, portable generators, and hammers would also be used throughout the site during the construction phases. This equipment would generate both steady state and episodic noise that would be heard both on and off the site.

The US Environmental Protection Agency has compiled data regarding the noise-generating characteristics of specific types of construction equipment. These data are presented in **Table 3.11-5, Maximum Noise Levels Generated by Typical Construction Equipment**. As shown, noise levels generated by heavy equipment can range from approximately 74 dB(A) to excess of 85 dB(A) when measured at 50 feet. However, these noise levels diminish with distance from the construction site at a rate of approximately 6 dB(A) per doubling of distance. For example, a noise level of 76 dB(A) measured at 50 feet from the noise source to the receptor would reduce to 70 dB(A) at 100 feet from the source to the receptor, and further reduce by another 6 dB(A) to 64 dB(A) at 200 feet from the source to the receptor.

Noise levels generated during the construction phases would affect occupants of off-site residences, and the faculty, staff, and students of Walnut Canyon Elementary School. Existing residences that would be most sensitive to temporary construction noise are located to the south, west, and east, and near the elementary school. Earth-grading equipment can generate some of the loudest noise levels of all standard construction equipment (**Table 3.11-5**). Unattenuated noise levels at these residences could reach 85 dB(A) at edge of the nearest sensitive receptors.

Table 3.11-5
Maximum Noise Levels Generated by Typical Construction Equipment

Type of Equipment	Actual Measured Noise Level (dBA at 50 feet)
Air Compressor	78
Backhoe	78
Concrete Mixer Truck	79
Crane	81
Dozer	82
Generator	81
Grader	85[a]
Paver	77
Pump	81
Roller	80
Tractor	84[a]
Welder	74

Sources: FHWA, Highway Construction Noise Handbook, 2006.
a. FHWA does not have data on actual measured noise levels, therefore FHWA provides a specification limit for maximum noise emitted.

Construction noise levels at adjacent noise-sensitive land uses, including Walnut Canyon School and residential uses would be considered significant. However, construction noise of the individual building areas would be of limited duration (i.e., short term), be restricted to daytime hours in accordance with the *Moorpark Municipal Code*, and with implementation of the **Mitigation Measure NOI-1**, impacts would be reduced to less than significant.

Besides equipment noise associated with the Proposed Project, the construction periods would generate traffic noise along access routes to the proposed development areas from the movement of equipment and workers onto the sites. The major pieces of heavy equipment would be moved onto the development once during each phase and would have an insignificant short-term effect on noise levels. In addition, the daily transportation is expected to cause increases in noise levels along project roadways. However, given that this traffic would not be a substantial percentage of daily volumes in the area and would not increase long-term levels by more than 3 dB(A), potential impacts would be less than significant.

Operational

Noise impacts would also result from completion of the Proposed Project. These long-term impacts would primarily result from project-generated vehicular traffic and increased human activity on the site. Each of these potential noise impacts is discussed separately below.

Traffic Noise

As stated in **Appendix 3.10, General Plan – Circulation Consistency Analysis**, of this EIR, the Proposed Project is projected to generate approximately 6,436 vehicle trips per day when completed. These vehicles accessing the existing roadway network has the potential to increase ambient noise levels in the project vicinity. According to Caltrans, vehicle noise emissions increase with speed, and increased traffic volumes increase traffic noise, however, it takes a doubling of traffic to increase noise levels by only 3 dB(A).[12]

The project's effects on off-site noise levels were based on the difference between the existing traffic volumes and the existing-plus-project traffic volumes. Noise levels that would be generated by these traffic volumes are identified in **Table 3.11-6, Project Traffic Noise Level Increases.** As shown, the increase in noise levels along all study roadways would range from 0.0 to 4.9 dB(A) CNEL. The largest increase of 4.9 dB(A) CNEL would be on Gabbert Road north of Poindexter Avenue but would not result in a noise level that exceeds the City's 65 dB(A) exterior noise level standard, and would not be considered significant. In all cases the increase in noise levels would not exceed the off-site roadway source thresholds of significance for this analysis and the project's off-site traffic noise impacts would not be significant.

Table 3.11-6
Project Traffic Noise Level Increases

	Noise Level at 75 feet From Roadway Centerline					
Roadway Segment	**Existing**	**Existing with Project**	**2026 without Project**	**2026 with Project**	**Increase Over Existing/2026**	**Significant?**
Los Angeles Avenue						
West of Somis Road	65.4	65.4	65.7	65.8	0.0/0.1	No
Between Somis Road and Grimes Canyon Road	67.2	67.2	67.6	67.7	0.0/0.1	No
Between Grimes Canyon Road and Tierra Rejada Road	67.3	67.4	67.8	67.9	0.1/0.1	No
Between Tierra Rejada Road and Moorpark Avenue	67.9	67.9	68.8	68.8	0.0/0.0	No
Between Moorpark Avenue and Spring Road	68.7	69.1	69.7	70.0	0.4/0.3	No
Between Spring Road and Miller Parkway	69.3	69.6	70.2	70.4	0.3/0.2	No
Between Miller Parkway and SR-23 onramps	69.2	69.5	69.4	69.6	0.3/0.2	No
East of SR-23 onramps	66.7	66.9	67.4	67.6	0.2/0.2	No

12 Caltrans, *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* September 2013.

Roadway Segment	Noise Level at 75 feet From Roadway Centerline					Significant?
	Existing	Existing with Project	2026 without Project	2026 with Project	Increase Over Existing/2026	
Grimes Canyon Road						
North of Los Angeles Avenue	60.2	60.2	60.5	60.5	0.0/0.0	No
Tierra Rejada Road						
Between Los Angeles Avenue and Countrywood Drive	66.1	66.3	66.6	66.7	0.2/0.1	No
Between Countrywood Drive and Mountain Trail Street	66.0	66.1	66.3	66.4	0.1/0.1	No
Between Mountain Trail Street and Mountain Meadow Drive	66.1	66.2	66.5	66.5	0.1/0.0	No
Between Mountain Meadow Drive and Walnut Creek Road	66.6	66.6	66.9	66.9	0.0/0.0	No
Between Walnut Creek Road and Peach Hill Road	67.5	67.5	67.8	67.8	0.0/0.0	No
Between Peach Hill Road and Spring Road	67.5	67.5	67.8	67.8	0.0/0.0	No
Between Spring Road and Moorpark Road	68.8	68.9	69.3	69.4	0.1/0.1	No
Between Moorpark Road and SR-23 onramps	69.7	69.8	70.1	70.2	0.1/0.1	No
East of SR-23 onramps	71.0	71.1	71.4	71.4	0.1/0.0	No
Gabbert Road						
North of Poindexter Avenue	50.4	55.3	56.1	58.1	4.9/2.0	No
South of Poindexter Avenue	60.3	61.1	61.3	62.0	0.8/0.7	No
Countrywood Drive						
West of Tierra Rejada Road	57.9	57.9	58.2	58.2	0.0/0.0	No
Mountain Trail Street						
North of Tierra Rejada Road	56.2	56.3	56.6	56.6	0.1/0.0	No
South of Tierra Rejada Road	57.9	57.9	58.2	58.2	0.0/0.0	No
Mountain Meadow Drive						
North of Tierra Rejada Road	56.1	56.2	56.6	56.7	0.1/0.1	No
South of Tierra Rejada Road	54.0	54.0	54.3	54.3	0.0/0.0	No
Walnut Creek Road						
North of Tierra Rejada Road	55.5	55.5	55.8	55.8	0.0/0.0	No
South of Tierra Rejada Road	54.1	54.1	54.4	54.4	0.0/0.0	No
Peach Hill Road						
Between Tierra Rejada Road and Spring Road	59.4	59.4	59.7	59.7	0.0/0.0	No
Walnut Canyon Road/Moorpark Avenue						
Between Broadway Road and Championship Drive	63.7	63.8	64.1	64.2	0.1/0.1	No
Between Championship Drive and Spring Road	64.4	64.5	64.8	64.9	0.1/0.1	No
Between Spring Road and Casey Road	61.2	61.4	62.3	62.4	0.2/0.1	No
Between Casey Road and High Street	60.1	61.1	61.7	62.3	1.0/0.6	No

Roadway Segment	Noise Level at 75 feet From Roadway Centerline					Significant?
	Existing	Existing with Project	2026 without Project	2026 with Project	Increase Over Existing/2026	
Between High Street and Poindexter Avenue	61.2	61.7	62.3	62.8	0.5/0.5	No
Between Poindexter Avenue and Los Angeles Avenue	59.1	59.9	60.5	61.1	0.8/0.6	No
Poindexter Avenue						
Between Gabbert Road and Moorpark Avenue	57.9	57.9	58.5	58.6	0.0/0.1	No
East of Moorpark Avenue	53.9	53.9	54.6	54.6	0.0/0.0	No
Spring Road						
Between Walnut Canyon Road and High Street	64.8	64.8	66.0	66.0	0.0/0.0	No
Between High Street and Los Angeles Avenue	64.8	65.1	65.7	65.9	0.3/0.2	No
Between Los Angeles Avenue and Peach Hill Road	63.5	64.0	64.2	64.5	0.5/0.3	No
Between Peach Hill Road and Tierra Rejada Road	62.9	63.2	63.7	63.9	0.3/0.2	No
High Street						
Between Moorpark Avenue and Spring Road	59.7	60.8	61.1	61.8	1.1/0.7	No
East of Spring Road	62.4	62.7	63.9	64.1	0.3/0.2	No
Miller Parkway/Moorpark Road						
North of Los Angeles Avenue	56.9	56.9	59.4	59.4	0.0/0.0	No
Between Los Angeles Avenue and Tierra Rejada Road	59.7	59.8	61.1	61.3	0.1/0.2	No
Between Tierra Rejada Road and Santa Rosa Road	66.3	66.3	66.6	66.7	0.0/0.1	No
Santa Rosa Road						
West of Moorpark Road	67.9	67.9	68.2	68.2	0.0/0.0	No
East of Moorpark Road	64.7	64.7	65.0	65.0	0.0/0.0	No

Source: Impact Sciences, Inc. Calculations are provided in ***Appendix 3.11***
Bold numbers indicate that a City of Moorpark exterior noise standard is exceeded

Residential Noise

Future residents of the Project site would generate noise that would include people talking, doors slamming, use of the parks and recreational areas, landscape maintenance equipment operations, stereos, domestic animals, etc. Noise levels generated by these sources typically do not exceed City standards for residential uses nor the standards previously identified. These noise levels also contribute to the ambient noise levels that are experienced in all quiet residential areas. Suburban residential areas typically have ambient noise environments of between 52 to 61 dB(A) L_{eq}, which are composites of traffic and other noise sources. These impacts would be less than significant.

Impact NOI-2 Generation of excessive groundborne vibration or groundborne noise levels.

Less than Significant with Mitigation

Ground vibrations from construction activities very rarely reach levels that can damage structures, but they can achieve the audible range and be felt in buildings very close to the Proposed Project site. The primary and most intensive vibration source associated with the development of the Proposed Project, under all three buildout scenarios, would be the use of bulldozers, leveling equipment, and pile drivers during construction. These types of equipment can create intense noise that is disturbing and can result in ground vibrations.

The results from vibration can range from no perceptible effects at the lowest vibration levels to low rumbling sounds and perceptible vibrations at moderate levels, and to slight structural damage at the highest levels. Ground vibrations from construction activities rarely reach the levels that can damage structures, but they can achieve the audible and perceptible ranges in buildings close to the construction site. **Table 3.11-7, Vibration Source Levels for Construction Equipment**, lists vibration source levels for construction equipment.

Table 3.11-7
Vibration Source Levels for Construction Equipment

Equipment		PPV[1] at 25 ft (in/sec)
Hydromill (slurry wall)	In soil	0.008
	In rock	0.017
Large Bulldozer		0.089
Caisson drilling		0.089
Loaded trucks		0.076
Jackhammer		0.035
Small bulldozer		0.003

Source: Office of Planning and Environment, Federal Transit Administration, Transit Noise and Vibration Impact Assessment (May 2006) FTA-VA-90-1003-06, 12-9.
Note:[1] PPV is Peak Particle Velocity

As indicated above in **Table 3.11-5**, large bulldozers are capable of producing approximately 0.09 PPV (peak particle velocity) at 25 feet. Land uses adjacent to the Project site that could be affected by groundborne vibration include the existing Walnut Canyon School and residential use surrounding the Project site. Depending on the location of construction equipment operations near these areas, the project could result in vibration levels near sensitive receptors above 0.01 in/sec or between 0.003 and 0.09 in/sec

at nearby structures containing sensitive receptors. In addition, these levels could exceed the threshold of architectural damage for conventional sensitive structures (e.g., residential units) of 0.2 in/sec PPV.[13] However, grading, and construction activities would be limited to operation during the hours of 7:00 AM to 7:00 PM Monday through Saturday, and not at any time on Sundays or any public holiday as described in the City of Moorpark Municipal Code. With these restrictions and implementation of the **Mitigation Measures NOI-1** through **NOI-4**, impacts will be less than significant.

3.11.6 CUMULATIVE IMPACTS

Cumulative noise impacts would primarily occur as a result of increased traffic on local roadways due to the proposed project and other developments in the area. Therefore, cumulative traffic-generated noise impacts have been assessed based on the difference between the existing traffic volumes and future traffic scenarios with the addition of project traffic volumes.

As shown, the project-related increase in noise levels along all study roadways would range from 0.0 to 4.9 dB(A) CNEL. The largest increase of 4.9 dB(A) CNEL would be on Gabbert Road north of Poindexter Avenue but would not result in a noise level that exceeds the City's 65 dB(A) exterior noise level standard, and would not be considered significant. In all cases the increase in noise levels would not exceed the off-site roadway source thresholds of significance for this analysis and the cumulative traffic noise impacts would not be significant.

3.11.7 MITIGATION PROGRAM

3.11.7.1 Standard Conditions and Requirements

Temporary Construction Activity Impacts

The applicant shall comply with Chapters 9.28, 10.04, 12.24, and 17.53 of the Moorpark Municipal Code and any provision amendatory or supplementary thereto, as a standard requirement for construction noise reduction.

3.11.7.2 Mitigation Measures

Construction

The following measures are recommended to reduce the adverse noise and vibration impacts associated with grading and construction activities to the greatest extent possible.

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13 US Department of Transportation, Federal Administration, Office of Planning and Environment, Transit and Vibration Impact Assessment, FTA-VA-90-1003-06, May 2006.

NOI-1 When construction operations occur within 100 feet of occupied residential areas and the Walnut Canyon Elementary School, the construction contractor(s) shall implement appropriate noise reduction measures. The following construction best management practices (BMPs) be implemented by contractors to reduce construction noise levels:

- Two weeks prior to the commencement of construction, notification must be provided to surrounding land uses within 1,000 feet of a Project site disclosing the construction schedule, including the various types of activities that would be occurring throughout the duration of the construction period.
- Ensure that construction equipment is properly muffled according to industry standards and in good working condition.
- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, i.e., nearby off-site residences, and the faculty, staff, and students of Walnut Canyon Elementary School, where feasible.
- Schedule high noise-producing activities, such as large earth-grading equipment that would generate over 85 dB(a), between the hours of 8:00 AM and 5:00 PM to minimize disruption to sensitive uses.
- Schedule grading when school is not in session, to the extent feasible.
- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.
- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 30 minutes.
- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the Moorpark School District or the job superintendent receives a complaint, the superintendent

shall investigate, take appropriate corrective action, and report the action taken to the reporting party.

Timing/Implementation: During grading and construction activities

Enforcement/Monitoring: City of Moorpark Public Works and Community Development Departments

NOI-2 The construction contractors during grading and earthmoving activities shall adjust vibration amplitudes of the construction equipment used on site, such as by limiting the number of pieces operating in one location at the same time in areas where conditions would affect structures, sensitivity of vibration sensitive equipment, and/or human tolerance.

Timing/Implementation: During grading and earthmoving activities

Enforcement/Monitoring: City of Moorpark Public Works and Community Development Departments

NOI-3 Prior to commencing grading and earthmoving activities, provide notification to Walnut Canyon School, and the residential land uses within 1,000 feet of the project at least 10 days in advance of construction activities that are anticipated to result in vibration levels above the 0.09 in/sec PPV threshold, i.e., days when large bulldozers would be in use.

Timing/Implementation: Prior to grading and earthmoving activities

Enforcement/Monitoring: City of Moorpark Public Works and Community Development Department

NOI-4 Storage, maintenance, and operation of earthmoving equipment on the construction site shall be as far from vibration-sensitive sites (i.e., Walnut Canyon School and residential use surrounding the Project site) as possible or practical; use wheeled or rubber-tracked equipment; and small pieces of equipment such as smaller bulldozers when possible.

Timing/Implementation: During grading and earthmoving activities

Enforcement/Monitoring: City of Moorpark Public Works and Community Development Departments

3.11.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project specific and cumulative residual impacts would be less than significant.

3.12 POPULATION AND HOUSING

INTRODUCTION

This section of the environmental impact report (EIR) analyzes the potential population and housing impacts of the specific plan on the City of Moorpark. Sources of information used in this section include the City of Moorpark General Plan *and the Housing Element contained therein, and MOORPARK 2020, An Examination of the City's Existing Conditions. Information was also obtained from the Southern California Association of Government (SCAG), the State of California Department of Finance (DOF) population and housing estimates, and US Census Bureau population and housing data.*

3.12.1 EXISTING CONDITIONS

3.12.1.1 Demographic Forecasts

Population, housing, and employment numbers for cities and counties are provided by three standard sources: the US Census Bureau, the California DOF, and SCAG. Since these three organizations use different methods of data collection and calculation, they do not always arrive at the exact same results. For purposes of this section, the term "households" refers to occupied dwelling units, as defined in the US Census. Therefore, household counts do not include all inhabitable dwelling units existing within the City.

The US Census Bureau decennial census occurs every 10 years in the years ending in zero to count the population and housing units in the entire United States. While its primary purpose is to provide the population counts that determine how seats in the US House of Representatives are apportioned, the census data forms the basis for which most demographic projections are calculated. The most recent census for which data is available was collected in 2010. The 2010 national census data, which was compiled using answers to surveys sent to all households within the United States, are provided for the nation, all states, and all counties, as well as each individual city. Additionally, the US Census conducts the American Community Survey annually, to provide updated data estimates between its decennial census.

The State of California DOF publishes population and housing estimates, updated yearly, for the state's counties and cities. The DOF estimates population growth based on census data and growth calculations.

SCAG has adopted population, dwelling unit, household, and employment forecasts for the Ventura region. The Ventura region includes all the cities and unincorporated areas in Ventura County. These growth forecasts, which are based on US Census data, were developed by SCAG staff with input from the planning staffs of the County and each pertinent city and are used for regional planning efforts such as the Regional Transportation Plan (RTP). Growth forecasts are provided for the total region, each growth and

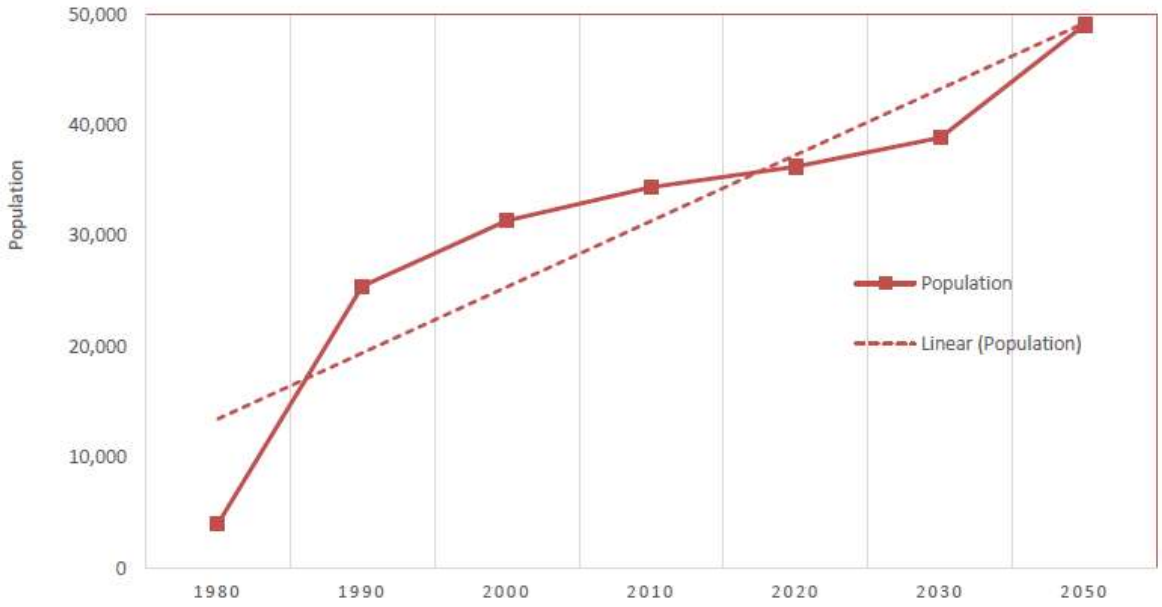
non-growth area within the County, and each city within the region. Growth areas within Ventura County are defined as geographic subareas where urban development has already taken place or is expected to take place, while nongrowth areas are defined as where urban development is not expected to occur.

3.12.1.2 Population

Moorpark is the sixth most populous incorporated city in Ventura County, with a population of 36,278 as of 2020 according to the California Department of Finance. As is the case with other new cities, Moorpark experienced significant growth following incorporation in 1983, increasing 500 percent as large specific plans replaced former agricultural lands. Following incorporation, the City was one of the fastest growing in the nation. Following the initial spurt in development typical for most newly incorporated communities, Moorpark's population growth has gradually slowed in subsequent decades.

Moorpark can expect continued population growth, albeit at a slower rate than in past decades. Future development on vacant lots, underperforming non-residential areas, adaptive re-use of properties, and the development of specific plans could add 1,800 units over the next few decades. As shown in **Figure 3.12-1, City of Moorpark Population Growth, 1980 to 2050**, if the current growth trend continues, the City could add another 10,700 to 12,700 residents from 2020 to 2050, reaching a total population of 48,000–50,200 and representing a 29–34 percent increase.[1]

1 *MOORPARK 2020, An Examination of the City's Existing Conditions*, Demographic Trends, Population Growth, page 4-67.



Source: Department of Finance, 1980-2020; SCA Growth Forecast, 2020-2045.

Figure 3.12-1
City of Moorpark Population Growth, 1980 to 2050

3.12.1.3 Housing

Moorpark's largest existing land use is residential, representing approximately 28 percent of the area within the City. At 2,072 acres, single-family residential uses (including mobile homes and rural residential) are the predominant form of housing and are distributed throughout the City. Multi-family residential units occupy 202 acres and are more diffuse in location compared to single-family uses, though they are primarily located near Downtown, Arroyo West Elementary School, and Moorpark College. In total, as of 2020, there are 11,415 housing units in Moorpark, 86 percent (9,859 units) are single-family (including rural residential), and 12 percent (1,412 units) are multi-family. Only 1 percent (144 units) of residences in Moorpark are mobile home units.[2] The Project proposes a more balanced mix of housing-types with approximately 57 percent of the total units as single-family and 43 percent as multi-family, increasing the overall City of Moorpark housing stock diversity and providing a wide range of housing types to meet the diverse needs of the community.

Housing stock in the City of Moorpark is relatively new with 79 percent of the units built since 1980. Almost 90 percent of the City's housing stock was built less than 50 years ago. Prior to 1950, fewer than 275 units were present. As a result, the overall condition of the housing stock is very good.[3]

3.12.1.4 Household Size

According to the California DOF estimates for 2021, households within the City of Moorpark have a household size ratio of 3.23.[4] This ratio represents a slight decrease from the average household size of 3.28 for 2010.[5] In order to be conservative, this EIR uses an average household size ratio of 3.3 persons per household.

3.12.1.5 SCAG Forecast

The SCAG Connect SoCal 2020-2045 RTP/SCS forecast provides estimates of population growth, housing units, and employment projected out to 2045. These forecasts aid local agencies in planning for future

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2 *MOORPARK 2020, An Examination of the City's Existing Conditions*, Community Development, Land Use – Residential, Page 4-1.

3 *MOORPARK 2020, An Examination of the City's Existing Conditions*, Community Development, Housing Age and Condition, Page 4-74.

4 California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark. (http://dof.ca.gov/Forecasting/Demographics/Estimates/E-5/) July 15, 2021.

5 California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark. (http://dof.ca.gov/Forecasting/Demographics/Estimates/E-5/) July 15, 2021.

growth. **Table 3.12-1, City of Moorpark 2010-2045 Population Growth Projection**, summarizes SCAG's population growth forecast for the City of Moorpark.

Table 3.12-1
City of Moorpark
2010-2045 Population Growth Projection

2010	2016	2045
34,421	36,700	42,200

Sources:
2010:US Census Bureau, 2010 Census Data
SCAG Connect SoCal 2020 RTP/SCS Demographics and Growth Forecast
https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579, accessed July 5, 2021.

As shown in **Table 3.11-1**, the City of Moorpark's population is expected to increase from 34,421 in 2010 to 42,200 in 2045, an increase of 7,779 residents, or approximately 22.5 percent, over the planning period. These projections are similar to those found in the City's *MOORPARK 2020, An Examination of the City's Existing Conditions* report (refer to **Figure 3.12-1, City of Moorpark Population Growth, 1980 to 2050**).**Table 3.12-2, City of Moorpark Household Growth Projection**, summarizes the 2020-2045 RTP/SCS forecast for the number of households within the City of Moorpark.

Table 3.12-2
City of Moorpark
2010–2045 Household Growth Projection

2010	2016	2045
10,484	11,000	13,000

Sources:
2010:US Census Bureau, 2010 Census Data
SCAG Connect SoCal 2020 RTP/SCS Demographics and Growth Forecast
https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579, accessed July 5, 2021.

As shown in **Table 3.12-2**, the number of households in the City of Moorpark is expected to increase from 10,484 households in 2010 to 13,000 in 2045, an increase of 2,516 households, or approximately 24 percent, over the planning period.

3.12.1.6 Regional Housing Needs Assessment

The Regional Housing Needs Assessment (RHNA) is a requirement of State housing law and is a process that determines projected and existing housing need for all jurisdictions (city or unincorporated county) in California. The process to determine a RHNA allocation is conducted by a council of governments, such as SCAG, every eight (8) years. Every jurisdiction must plan for its RHNA allocation in its housing element of its General Plan by ensuring there is enough sites and zoning to accommodate their RHNA allocation. Many jurisdictions use the housing element as an opportunity to complement their economic development, open space, and sustainability goals with its housing goals. Once updated, housing elements are reviewed by the California Department of Housing and Community Development (HCD) and must be adopted by the jurisdiction.

The most recent RHNA allocation for the SCAG region, or the 5th cycle RHNA was adopted in October 2012 and covers the housing element planning period October 2013 to October 2021. The RHNA Allocation Plan projects the need for an additional 1,164 residential units within the City of Moorpark by 2021. Of these units, 289 are designated very low income, 198 low income, 216 moderate income, and 462 above moderate income. The City's General Plan and Housing Element updates (currently underway), along with the 6th cycle RHNA allocation will cover the planning period October 2021 through October 2029.

3.12.2 REGULATORY FRAMEWORK

3.12.2.1 Federal Regulations

Federal Uniform Act (URA) (1970)

The Federal Uniform Act (Uniform Relocation Assistance and Real Property Acquisition Policies Act; 42 U.S. Code [USC] 61), passed by Congress in 1970, is a federal law that establishes minimum standards for federally funded programs and projects that require the acquisition of real property (real estate) or displace persons from their homes, businesses, or farms. The Uniform Act's protections and assistance apply to the acquisition, rehabilitation, or demolition of real property for federal or federally funded projects.

Department of Housing and Urban Development Act

The Department of Housing and Urban Development Act created the U.S. Department of Housing and Urban Development (HUD) as a Cabinet-level agency. HUD is responsible for national policy and programs that address housing needs in the U.S. HUD is responsible for enforcing fair housing laws. HUD plays a major role in supporting homeownership by underwriting homeownership for lower- and moderate-income families through its mortgage insurance programs.

Fixing America's Surface Transportation Act (FAST)

The Fixing America's Surface Transportation (FAST) Act (Pub. L. No. 114-94), enacted in 2015, builds on the changes to federal transportation planning law made by MAP-21. It was the first long-term surface transportation authorization enacted in a decade that provides long-term funding certainty for surface transportation. The FAST Act authorizes $305 billion over fiscal years 2016 through 2020 for highway improvements, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs. The FAST Act maintains the focus on safety, keeps intact the established structure of the various highway-related programs, continues efforts to streamline project delivery, and provides a dedicated source of federal dollars for freight projects.

Federal Planning Regulations, Title 23 CFR 450.322(e)

This federal regulation requires that in development of the regional transportation plan that the relevant Metropolitan Planning Organization (MPO) validate data utilized in preparing other existing modal plans (such as transit providers long range plans) for providing input to the regional transportation plan. In updating the plan, the MPO shall base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity. The MPO shall approve transportation plan contents and supporting analyses produced by a transportation plan update.

3.12.2.2 State

1969 California Housing Element Law

The California Housing Element Law (California Government Code §65300) requires SCAG and other regional councils of government in California to determine the existing and projected regional housing needs for persons at all income levels. According to California Government Code §65300, each governing body of a local government in California is required to adopt a comprehensive, long-term general plan for the physical development of the city, city and county, or county. The California Housing Element Law, enacted in 1969, mandates that local governments adequately plan to meet the existing and projected housing needs of all economic segments of the community as part of the housing element, one of the seven mandated elements of the local general plan. The California Housing Element Law is implemented by the California Department of Housing and Community Development (HCD), which is responsible for reviewing local governments' housing elements for compliance with state law and providing written comments to the local governments. Using the information provided by local governments in its Housing Element, the HCD determines the regional housing need for each county and allocates funding to meet this need to the council of governments for distribution to its jurisdictions. The HCD also oversees distribution of funding related to the regional housing need by the council of governments to the local governments to

ensure that funds are appropriately allocated. The requirements for the Housing Element are delineated in California Government Code Section 65580–65589.9.

SB 375 - The Sustainable Communities and Climate Protection Act of 2008

Senate Bill 375 (SB 375) focuses on aligning transportation, housing, and other land uses to achieve regional greenhouse gas (GHG) emission reduction targets established under the California Global Warming Solutions Act, also known as Assembly Bill No. 32 (AB 32). SB 375 requires California Metropolitan Planning Organizations to develop a Sustainable Communities Strategy (SCS) as part of the RTP, with the purposes of identifying policies and strategies to reduce per capita passenger vehicle-generated GHG emissions. In application, the SCS must identify the general location of land uses, residential densities, and building intensities within the region; identify areas within the region sufficient to house all the population of the region; identify areas within the region sufficient to house an eight-year projection of the regional housing need; identify a transportation network to service the regional transportation needs; gather and consider the best practically available scientific information regarding resources areas and farmland in the region; consider the state housing goals; set forth a forecasted development pattern for the region; and allow the regional transportation plan to comply with the federal Clean Air Act (CAA) of 1970 (42 USC. § 7401 *et seq.*) (Gov. Code, § 65080, subd. (b)(F)(2)(B)), of which, when integrated with the transportation network, and other transportation measures and policies will reduce the GHG from automobiles and light duty trucks to achieve, if there is a reasonable way to do so, the GHG emission reduction targets approved by the California Air Resources Board (ARB). If the SCS does not achieve the GHG emission targets set by ARB, an Alternative Planning Strategy (APS) must be developed to demonstrate how the targets could be achieved.

SB 375 also imposes a number of new requirements on the regional housing needs process. Prior to SB 375, the regional transportation plan and regional housing needs processes were not required to be coordinated. SB 375 now synchronizes the schedules of the regional housing needs allocation (RHNA) and regional transportation plan processes every eight years (the next RHNA update, the 6th cycle, will occur after the 2022 RTP). The RHNA, which is developed after the regional transportation plan, must also allocate housing units within the region consistent with the development pattern included in the SCS. Previously, the RHNA determination was based on population projections produced by the Department of Finance. SB 375 requires the determination to be based upon population projections by the Department of Finance and regional population forecasts used in preparing the regional transportation plan. If the total regional population forecasted and used in the regional transportation plan is within a range of 1.5 percent (previously 3 percent) of the regional population forecast completed by the Department of Finance for the same planning period, then the population forecast developed by the regional agency and used in the regional transportation plan shall be the basis for the determination. If the difference is greater than 1.5

percent, then the two agencies shall meet to discuss variances in methodology and seek agreement on a population projection for the region to use as the basis for the RHNA determination. If no agreement is reached, then the basis for the RHNA determination shall be the regional population projection created by the Department of Finance.

Existing law requires local governments to adopt a housing element as part of their general plan. Unlike the rest of the general plan, where updates sometimes occur at intervals of 20 years or longer, under previous law the housing element was required to be updated as frequently as needed and no less than every five years. Under SB 375, this period has been lengthened to eight years and timed so that the housing element period begins no less than 18 months after adoption of the regional transportation plan, to encourage closer coordination between the housing and transportation planning. SB 375 also changes the implementation schedule required in each housing element. Previous law required the housing element to contain a program which set forth a five-year schedule of to implement the goals and objectives of the housing element. The new law instead requires this schedule of actions to occur during the eight-year housing element planning period, and requires each action have a timetable for implementation.

Regional Housing Needs Assessment

As discussed above in the discussion of SB 375, State law requires preparation of a Regional Housing Needs Assessment (RHNA) allocation plan every eight years. The RHNA is a key tool for the Southern California Association of Governments (SCAG) and its member governments to plan for this growth. The RHNA quantifies the regional need for housing that is allocated to each jurisdiction for a certain planning period (the current forecast extends through 2029). Communities then plan, consider, and decide how they will address this need through the process of completing the Housing Elements of their General Plans. The RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that they can grow in ways that enhance quality of life, improve access to jobs, transportation and housing, and not adversely impact the environment.

This region's RHNA allocation plan is developed every eight years by SCAG after preparation of the RTP, as mandated by state law, to coincide with the region's schedule for preparing Housing Elements. It consists of two measurements of housing need: (1) existing need and (2) future need for very-low income, low-income, moderate, and above-moderate income categories.

The existing need assessment is based on data from the most recent US Census to measure ways in which the housing market is not meeting the needs of current residents. These variables include the number of low-income households paying more than 30 percent of their income for housing, as well as severe overcrowding.

The future need for housing is determined primarily by the forecasted growth in households in a community, based on historical growth patterns, job creation, household formation rates, and other factors to estimate how many households will be added to each community over the projection period. The housing need for new households is then adjusted to account for an ideal level of vacancy needed to promote housing choice, maintain price competition, and encourage acceptable levels of housing upkeep and repair. The RHNA also accounts for units expected to be lost due to demolition, natural disaster, or conversion to non-housing uses. The sum of these factors household growth, vacancy need and replacement need form the "construction need" assigned to each community.

Finally, the RHNA considers how each jurisdiction might grow in ways that will decrease the concentration of low-income households in certain communities. The need for new housing is distributed among income groups so that each community moves closer to the regional average income distribution.

California Department of Housing and Community Development

State Housing Law (Government Code Section 65580) requires local government plans to address the existing and projected housing needs of all economic segments of the community through their housing elements. The housing element is one of seven state-mandated elements that every General Plan must contain, and it is required to be updated every eight years and determined legally adequate by the state. The purpose of the housing element is to identify the community's housing needs, state the community's goals and objectives with regard to housing production, rehabilitation, and conservation to meet those needs. In addition, the Housing Element defines the related policies and programs that the community will implement in order to achieve the stated goals and objectives. This would be accomplished through the allocation of regional housing needs consistent with the SCS.

Senate Bill No. 2

SB 2 (Chapter 633, Statutes of 2007) strengthens state housing element law (Government Code Section 65583) by ensuring that every jurisdiction identifies potential sites where new emergency shelters can be located without discretionary review by the local government. It also increases protections for providers seeking to open a new emergency shelter, transitional housing, or supportive housing development, by limiting the instances in which local governments can deny such developments.

California Relocation Assistance Act

The California Relocation Assistance Act (Government Code Section 7260 *et seq.*) establishes uniform policies to provide for the fair and equitable treatment of people displaced from their homes or businesses as a direct result of state and/or local government projects or programs. The California Relocation

Assistance Act requires that comparable replacement housing be made available to displaced persons within a reasonable period of time prior to the displacement. Displaced persons or businesses are assured payment for their acquired property at fair market value. Relocation assistance in the form of advisory assistance and financial benefits would be provided at the local level. This includes aid in finding a new home location, payments to help cover moving costs, and additional payments for certain other costs.

Zenovich–Moscone–Chacon Housing and Home Finance Act of 1975

In response to state population and household growth, and to ensure the availability of affordable housing for all income groups, the State Department of Housing and Community Development (HCD) is responsible for determining the regional housing need for all jurisdictions in California.

Senate Bill 535: California Global Warming Solutions Act of 2006: Greenhouse Gas Reduction Fund (GGRF)

SB 535 was signed into law by Governor Brown on September 30, 2012. This bill sets aside cap and trade revenues to mitigate climate change in disadvantaged communities. The California EPA is the responsible agency for identifying disadvantaged communities for potential investment. The California Department of Finance must allocate 25 percent of the available moneys in the GGRF to projects that benefit disadvantaged communities and a minimum of 10 percent to projects located within disadvantaged communities.

Homeowners and Private Property Protection Act

In 2008, California voters approved Proposition 99, the Homeowners and Private Property Protection Act, which amended the California Constitution so that local governments are prohibited from using eminent domain authority to acquire an owner-occupied residence for the purposes of conveying it to a private recipient, with limited exceptions. Proposition 99 applies only to owner-occupied residences but cities may still use eminent domain authority to convey multi-family and non-residential property to other private parties.

3.12.2.3 Local

The following goals and policies of the *City of Moorpark General Plan* are applicable to the proposed Hitch Ranch Specific Plan project.

2014-2021 Housing Element

Goal 2: Provide residential sites through land use, zoning and specific plan designations to provide a range of housing opportunities.

Policy 2.1 Identify adequate sites which will be made available and zoned at the appropriate densities, to facilitate goals set forth in the 2014-2021 RHNA.

Policy 2.2 Ensure residential sites have appropriate public services, facilities, circulation, and other needed infrastructure to support development.

Policy 2.3 Investigate rezoning or re-designation of commercial lots that are no longer economically viable uses to appropriate residential uses.

Goal 3: Expand and protect housing opportunities for lower income households and special needs groups.

Policy 3.4 Require, in aggregate, 10 percent of new units to be affordable to lower-income households. Establish priority for usage of in-lieu fee as follows: 1st priority — production of affordable housing; 2nd — subsidy of affordable housing; 3rd — housing rehabilitation; and 4th priority — housing assistance; and 5th — staffing costs.

Land Use Element

Policies in the City's Land Use Element related to population and housing are provided in **Section 3.10, Land Use**. Refer to that section for a discussion of the project's consistency with these policies.

3.12.3 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *State CEQA Guidelines* (Environmental Checklist Form), a project could have a significant impact when it would:

- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure).
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

3.12.4 ENVIRONMENTAL IMPACTS

Impact POP-1 **Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)**

Less than Significant

Based on the City's average household size of 3.3 persons, the 755 housing units generated by the Proposed Project would translate into a population increase of approximately 2,492 persons (755 units x 3.3 persons/unit = 2,491.5 persons), assuming none of the new residents lived in the City prior to construction of the Proposed Project for a conservative analysis. Overall, the total increase in population due to the Project would represent about 7.24 percent of the City's 2010 Census population of 34,421 and 5.93 percent of the City's projected 2045 population of 42,022.

SCAG is the regional planning agency for the City of Moorpark. SCAG projected population growth within the City between the year 2010 and 2045, which is estimated to grow by about 7,779 residents. Assuming the project's estimated increase in population of 2,492 persons, it would account for about 32.03 percent of the projected population growth in the City within this timeframe. In addition, the population increase would not exceed the 2045 population allocation forecast for the City of 42,022 persons as identified within the SCAG Forecast for 2045. Therefore, the project's population growth impacts would not exceed projections for the City, would not induce substantial unplanned growth; no mitigation is required and impacts would be less than significant.

Impact POP-2 **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.**

Less than Significant

Previously, there was one unoccupied residential structure on Project site, which burned in the October 2003 fire. The widening of Casey Road may affect the five existing houses on the north side of Casey Road, west of Walnut Canyon Road, in the City of Moorpark. Additionally, impacts to the vacant Aldersgate parcel to the north are addressed as well as the south side of Casey Road. Improvements in this area would be the shared responsibility of the Hitch Ranch and Aldersgate developments, based on methodology to be defined by future agreements with the City of Moorpark.

Impacts of the road widening are outlined as follows:

Ventura County Watershed Protection District drain: Permission would be required to construct a covered box extension and new access gates for the existing storm drain box on the north side of the street immediately west of 145 Casey Road.

Aldersgate Parcel: Right of way would be dedicated by the developer of this parcel prior to the widening of Casey Road. If the Aldersgate parcel is not developed prior to development of the Project site, cost recovery for roadway improvements incurred by the Project Applicant shall be allowed.

261 Casey Road: Widening would require acquisition of right of way that would reduce the front yard setback to approximately 13 to 24 feet. A decorative front yard wall with vine planter pockets and front gate would be required behind the right of way line. The design of the wall and landscape shall be consistent for all homes along this north frontage of Casey Road. Vehicular driveway access could be maintained on Casey Road or be provided from the existing access road on the Aldersgate parcel along the eastern boundary of 261 Casey Road. This existing access road will remain unless replaced by a relocated access point from within the Aldersgate development project.

273 Casey Road: Widening would require acquisition of right of way that would reduce the front yard setback to approximately 22 feet. A decorative partial retaining and front yard wall with vine planter pockets and front gate with steps on the private property would be required behind the right of way line. The design of the wall and landscape shall be consistent for all homes along this north frontage of Casey Road. Vehicular driveway access will be maintained from Casey Road as this parcel is land-locked by existing homes.

321 – 323 Casey Road: Widening would require acquisition of right of way that would reduce the front yard setback to approximately 18 to 21 feet. A decorative partial retaining and front yard wall with vine planter pockets and front gate with steps on the private property would be required behind the right of way line. The design of the wall and landscape shall be consistent for all homes along this north frontage of Casey Road. This irregular-shaped parcel currently has access to, and makes use of, the existing access road on the Aldersgate parcel along the eastern boundary of 261 Casey Road. Therefore, all future vehicle access will be from this location and not directly from Casey Road. As stated at the 261 Casey Road description, this existing access road will remain unless replaced by a relocated access point from within the Aldersgate development project.

325 Casey Road: Widening would require acquisition of right of way re-grading the slope at the Casey Road frontage and demolition of the existing detached garage. A new driveway is proposed to be located on the Hitch Ranch property and land deeded to 325 Casey Road for that purpose. Additionally, a replacement garage is to be constructed at this address with the property owner's permission. A decorative

partial retaining and front yard wall with vine planter pockets and front gate with steps on the private property would be required behind the right of way line. The design of the wall and landscape shall be consistent for all homes along this north frontage of Casey Road.

Moorpark School District Property: The proposed road improvements would not impact school fences or driveway locations. Street grade tie-ins at school driveways would be adjusted per City of Moorpark Public Works standards.

Boys & Girls Club: The proposed road improvements would not impact buildings or driveway locations. Street grade tie-ins at driveways would be adjusted per City of Moorpark Public Works standards. The proposed Essex apartment development design should incorporate the proposed improvements in their final design plans for Casey Road.

Therefore, since the Project site is currently vacant, and the widening of Casey Road would not displace any of the affected housing units which would require replacement housing elsewhere; no mitigation is required, and impacts would be less than significant.

3.12.5 CUMULATIVE IMPACTS

The total number of residential units that would result from the buildout of the City's General Plan considered in this analysis has been listed and described in **Section 3.0** of this EIR. General Plan buildout projects, including the Hitch Ranch Specific Plan (proposed in the General Plan Land Use Element (1992)as 415 units, and in the Housing Element (2014) as 755 units), would combine to allow the construction of up to 12,822 housing units. The updated Housing Element allowed for the additional 340 housing units allowed in the Specific Plan due to provision of public benefits, and to allow for the City to meet its affordable housing requirements; these units were included as part of the 5th cycle RHNA. The Project will dedicate land to the City that is zoned RPD-20U-N-D for the potential provision of additional affordable housing under separate approvals by the City at a future date. Based on the City's current average household size of 3.3 persons, the City's population would increase by 42,313 persons. This additional population would result in the City's total population slightly exceeding the SCAG 2045 projection of 42,200 persons. It should be noted that the development of residential projects is contingent on several factors, including market demand, project approval, and developer financing, and the actual number of residential units that may be developed by cumulative projects, and the resultant population increase, is speculative. In addition, the impacts due to population increases are usually associated with other environmental issue areas such as public services and utilities, transportation, etc. In cases where increases in population are directly related to environmental impacts within this EIR, impacts are either less than significant or have been mitigated to less than significant levels.

3.12.6 MITIGATION PROGRAMS

3.12.6.1 Mitigation Measures

No mitigation is required.

3.12.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project-specific and cumulative residual impacts would be less than significant.

3.13 PUBLIC SERVICES

INTRODUCTION

This section presents an overview of existing fire protection, law enforcement, and library services provided by the City of Moorpark, and schools services provided by the Moorpark Unified School District in the proposed specific plan area. Where significant impacts are identified, mitigation measures are recommended to reduce such impacts to acceptable levels.

3.13.1 REGULATORY FRAMEWORK

3.13.1.1 State Laws and Regulations

Senate Bill 50

The Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50 (SB 50), restricts the ability of a local agency to deny project approvals on the basis that public school facilities (classrooms, auditoriums, etc.) are inadequate. School impact fees are collected at the time building permits are issued. These fees are used by the local schools to accommodate the new students added by the Project, reducing potential impacts on schools to a less than significant impact. Payment of school fees is required by SB 50 for all new residential development projects and is considered full and complete mitigation for school impacts of new development.

California Fire Code

The California Fire Code (Title 24 CCR, Part 9) establishes minimum requirements to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. Chapter 33 of CCR contains requirements for fire safety during construction and demolition.

3.13.1.2 Local

The following goals and policies contained within the *Moorpark General Plan* are applicable to the Proposed Project.

Land Use Element

Goal 12: Ensure that a full range of public facilities and services are provided to meet the needs of the community.

Policy 12.1: Development shall be permitted only when adequate public facilities and services are available or will be provided when needed.

Policy 12.2: Efficient and equitable delivery of urban services shall be ensured by the development of capital improvement plans for urban services which 1) identify existing and future (general plan buildout) needs; 2) establish a phasing plan for providing new urban services commensurate with needs generated by existing and future development; and 3) assure that financing is available to provide adequate necessary facilities and services prior to approval of any project which would exceed the capacity or significantly reduce the quality of existing services.

Policy 12.7: Where feasible, shared use programs between public and private service and facility providers shall be encouraged.

Policy 12.8: Any proposed project shall be required to contribute its fair share of the cost of providing adequate public services and facilities.

Safety Element

Goal 6 Reduce the risk to the community from hazards related to wildfire and structural fires.

Policy 6.3: Continue to require noncombustible roofing materials for new and replacement roofing.

3.13.2 FIRE PROTECTION

3.13.2.1 Existing Conditions

Staff and Facilities. The Ventura County Fire Department (VCFD) is responsible for providing fire protection services to the Cities of Moorpark, Camarillo, Ojai, Port Hueneme, Simi Valley, Thousand Oaks, Santa Paula, and unincorporated areas of Ventura County.

Two fire stations are near the specific plan area, Fire Station 42 and Fire Station 40. Fire Station 42 is located at 295 High Street, approximately 0.5 mile east of the specific plan area. Fire Station 42 would be the primary response engine company. Response time from this station to the specific plan area would be approximately 3-minutes. Fire Station 42 is staffed with a crew of three per 24-hour shift. The station is equipped with an engine, a reserve engine and a brush engine.

Fire Station 40 is located at 4185 Cedar Springs Street, approximately 1.5 miles southwest of the Project site. Response time from this station to the Project site would be approximately 5-minutes. Fire Station 40 is currently equipped with a medic/engine, a reserve engine, a utility pickup, and an urban search and rescue tractor/trailer. The station is staffed with a crew of three per 24-hour shift.

Standards. Adequacy of fire protection services for any given area is based on a combination of factors that include (1) fire-flow and access; (2) response distance/time from available fire service facilities; and (3) the VCFD's judgment regarding frequency of calls and nature of the response requirement.

In general, fire-flow requirements are closely related to land use. The quantity of water necessary for fire protection varies with the type of development, life hazard, occupancy, and the degree of fire hazard.

The County of Ventura, and the Ventura County Waterworks District No. 1 (VCWWD No. 1) require new developments to meet a minimum 2,500 gallons per minute (gpm) fire flow. The water distribution system is designed to yield a minimum residual pressure of 40 pounds per square inch (psi) during peak hour demands and a minimum residual pressure of 20 psi during maximum day demands plus fire flow. Each fire hydrant shall be capable of 1,500 gpm fire flow for minimum duration of three hours at 20 psi residual pressure. Street width requirements vary for fire access from 25 to 36 feet for some residential uses.[1]

A quick response time is critical for the prevention of loss of life and property damage. As the number of calls increases, response times can increase. VCFD's policy is to provide an emergency response time of 4- to 7-minutes from the "first-in" station. All 911 calls for fire engines or rescue units are answered by the sheriff's department central dispatch and routed to the fire communications center. All fire fighters are emergency medical technician (EMT) trained, and ambulance services are provided through private carriers.

According to the Fire Protection Division of the Ventura County Fire Department, the Specific Plan Area is a designated "high fire hazard area." A "high fire hazard" area is defined as any area or structure within 500 feet of standing brush or grass.

Emergency Assistance. The Ventura County Fire Department is a part of the State of California Master Mutual Aid Response Program. VCFD has 37 facilities Countywide, from which resources can be drawn. In severe fire conditions, VCFD may rely on the cities of Oxnard, Ventura, Los Angeles, and Santa Barbara, as well as the Counties of Los Angeles and Santa Barbara, the California Division of Forestry,

1 Dudek, *Hitch Ranch Fire Protection Plan*, July 2021, included as **Appendix 3.18-A** to this Draft EIR.

and the United States Forest Service for immediate assistance. In the event of statewide conflagrations or natural disasters, resources within California, as well as specialized response teams throughout the United States may be called upon.

According to the Fire Protection Division of the Ventura County Fire Department, fire protection services in the City of Moorpark are adequate, and will be able to serve future growth in the City. Future fire service needs are evaluated annually, based upon the current population, projected population, and proposed new development. A fee is assessed by VCFD on all new development at the time building permits are issued to ensure that VCFD grows in concert with the City's population.

3.13.2.2 Thresholds of Significance

According to Appendix G of the *State CEQA Guidelines* (Environmental Checklist Form), a project could have a significant impact when it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives.

3.13.2.3 Project Impacts

Impact PS-1 **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?**

Less than Significant with Mitigation

Construction

A large amount of wood framing would occur on the specific plan site during construction. In association with the framing operations, electrical, plumbing, communications, and ventilation systems would be installed in each structure. Although rare, fires do occur at construction sites. The electrical, plumbing, and mechanical systems for the development would be installed in accordance with City of Moorpark codes and inspection by City personnel prior to drywall installation. In addition, construction sites are subject to City requirements relative to water availability and accessibility to firefighting equipment.

Proper adherence to City codes and requirements would, therefore, reduce the potential for fire hazards and impacts would be less than significant.

In addition, construction traffic would occur on and near the Project site during working hours associated with commuting construction workers, trucks, and other large construction vehicles. Slow-moving, construction-related traffic on local adjacent roadways may temporarily reduce optimal traffic flows on local roadways and could conceivably delay emergency service vehicles. This impact is not considered significant given the periodic and short-term nature of any construction-related traffic. With the use of flagmen and other standard construction practices such as traffic detour plans, haul routes, hours of operation, protective devices, warning signs, and access to abutting properties during construction as outlined in **Mitigation Measure FP-1**, impacts would be less than significant.

Operation

At buildout of the Specific Plan, up to 755 dwelling units, with additional recreational and open space uses, would be constructed. Based on an estimated 3.3 persons per household for the City of Moorpark, buildout of the specific plan would result in the addition of approximately 2,492 persons to the City's population. Therefore, demand for fire protection service would incrementally increase above current levels. Calls for service are expected to be those typical of residential and recreational uses. Such calls may include kitchen/house fires, garbage bin fires, electrical fires, car fires, and medical emergencies. All such fires and medical emergencies can be adequately addressed with the types of equipment typically found at fire stations within VCFD. The Project would be required to pay VCFD facilities fees, currently $979.46 per single-family residential unit and $721.87 per multifamily residential unit.[2]

Staffing Needs. Fire prevention services within the City of Moorpark are currently adequate, and are expected to serve the City for the future. Service needs, including staffing needs, are evaluated annually based on population growth and proposed new development. If VCFD determines that the addition of 2,492 persons to the City's population, including the uses proposed for the specific plan, would require additional fire protection staff, the Project Applicant would be required to pay a Fire Facilities Ordinance Fee. The fee would ensure that the VCFD's growth occurs at a rate sufficient to meet the City's growth, and would also be used to defray the cost of providing increased levels of fire protection. As a result, the specific plan's anticipated impacts to staffing are considered to be less than significant.

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2 City of Moorpark. 2020. 2020 City of Moorpark Typical Development Contributions and Other Agency Contact Information.

Fire Flow. The exact fire flow requirements for the proposed specific plan would be determined at the preconstruction phase. Generally, VCFD requires at least 1,000 gallons per minute (gpm) for single-family dwellings and 1,250 gpm for multi-family dwellings. A minimum residual water pressure of 20 pounds per square inch (psi) is to remain in the water system, with the required rate of fire flow. The Project Applicant would be required to extend water lines to the Project site from existing water mains in the vicinity, so as to meet the fire flow requirements for the project. Analysis provided by Water Resources Engineering Associates (WREA) in their *Preliminary Water Usage Evaluation and Hydraulic Analysis* dated June 5, 2019 (included as **Appendix 3.13** to this Draft EIR) indicates that the required fire flow can be obtained at greater than 20 psi residual pressure for all planning areas. As a result, impacts would be less than significant.

Response Distance/Time. As previously mentioned, Fire Stations 42 and 40 are located 0.5 and 1.5 miles from the Project site, respectively. These distances are considered by VCFD to be reasonable to serve the Project site, given that the stations serve the entire City of Moorpark. Fire Station 42 would provide primary response services to the Project site and Station 40 would provide supplemental response services. Fire Station 42 would be able to respond to the specific plan site in approximately 3-minutes, which is under the VCFD performance goal of 4- to 7-minutes. The proposed specific plan is, therefore, not anticipated to result in significant impacts to fire protection response times in the City of Moorpark. Refer also to **Section 3.18, Wildfire** in this EIR.

However, while physical response distances and current response times are considered adequate, traffic increase as a result of the Proposed Project could impact response times in the absence of mitigation measures that are identified in **Section 3.14, Transportation/Circulation**, of this EIR.

Anticipated Frequency and Nature of Emergency Occurrence (Special Fire Protection Problems). The frequency and nature of future emergency calls is difficult to predict. No uses allowed in the Specific Plan are unusual or have the potential to generate an unusual number or type of calls for service. However, the Specific Plan site is located in an area designated as a "high fire hazard area." Construction would, therefore, be required to comply with all applicable building and fire code requirements. These requirements may include items such as types of roofing materials, building construction, brush clearance, fire hydrant flows, hydrant spacing, access and design, and other hazard reduction programs, as set forth by VCFD. With the implementation of standard conditions and requirements as outlined below, potential fire hazard impacts would be reduced to less than significant levels. Refer also to **Section 3.18, Wildfire** in this EIR.

3.13.2.4 Cumulative Impacts

The Proposed Project and other planned and approved developments throughout the City would cumulatively increase the need for services from VCFD. However, as stated earlier, all new developments are required to comply with applicable building and fire code requirements and pay the Fire Facilities Ordinance Fee. It is expected that with these requirements, VCFD would not be significantly impacted by cumulative project development. Refer also to **Section 3.18, Wildfire** in this EIR.

3.13.2.5 Mitigation Program

Standard Conditions and Requirements

- Concurrently with the issuance of a building permit, the Fire Protection Facilities Fee must be paid to the Building and Safety Division in accordance with City Council adopted Fire Protection Facilities Fee requirements in effect at the time of building permit application.

- Prior to combustible construction, an all-weather access road/driveway and the first lift of the access road pavement must be installed. Once combustible construction starts a minimum 20-foot clear width access road/driveway must remain free of obstruction during any construction activities within the development. All access roads/driveways must have a minimum vertical clearance of 13 feet 6 inches and a minimum outside turning radius of 40 feet.

- Approved turnaround area for fire apparatus must be provided when dead-end Fire District access roads/driveways exceed 150 feet. Turnaround areas may not exceed a 5 percent cross slope in any direction and must be located within 150 feet of the end of the access road/driveway.

- The access road/driveway must be extended to within 150 feet of all portions of the exterior wall of the first story of any building and must be in accordance with Fire District access standards. Where the access roadway cannot be provided, approved fire protection system or systems must be installed as required and acceptable to the Fire District.

- When only one access point is provided, the maximum length of the access road may not exceed 800 feet.

- Public and private roads must be named if serving more than four parcels or as required by the Fire Department. All street naming shall be in accordance with currently adopted City Council policy.

- Approved walkways must be provided from all building openings to the public way or Fire District access road/driveway.

- All new structures must be provided with an automatic fire sprinkler system in accordance with current Ventura County Fire Department Ordinance.

- Commercial trash dumpsters and containers with an individual capacity of 1.5 cubic yards or greater may not be stored or placed within 5 feet of openings, combustible walls, or combustible eave lines unless protected by approved automatic sprinklers.

- The developer shall provide adequate access points, water mains, fire hydrants, valve connections, and other fire protection facilities as required by the County Fire Chief. Prior to obtaining building permits, the developer shall file fire protection improvement plans with the City of Moorpark and VCFD. The plans shall be prepared to the satisfaction of the VCFD. Upon approval of the plans, the VCFD shall certify in writing to the City Department of Public Works that the proposed fire protection improvements are satisfactory.

- Prior to issuance of building permits, the developer shall submit plans to the Ventura County Bureau of Fire Prevention for approval of the location of fire hydrants.

- Fire hydrants shall be installed and in service prior to issuance of certificates of occupancy, and shall conform to the minimum standards of the City of Moorpark as well as the VCFD .

- A plan for delineating building addresses for purposes of emergency response shall be submitted to, and approved by, the City of Moorpark and Ventura County Fire Department by the developer prior to the issuance of certificates of occupancy.

- Prior to the issuance of building permits, the developer shall provide proof of compliance with all applicable building and fire code requirements for items such as types of roofing materials, building construction, brush clearance, fire hydrant flows, hydrant spacing, access and design, fire sprinkler systems, and other hazard reduction programs, as set forth by VCFD.

- The VCFD and City Engineer shall review and approve proposed street alignments, grades, widths, lengths, and turning radii prior to approval of the tentative tract map by the City.

- The developer shall provide landscape/fuel modification plans prepared by a licensed landscape architect to VCFD for review and approval prior to the issuance of certificates of occupancy. The use of drought-tolerant, fire-resistant, native vegetation shall be incorporated into the landscape/fuel modification plans.

Mitigation Measures

FP-1: To reduce emergency vehicle delays during construction, the applicant shall implement standard construction traffic control procedures, such as the use of flaggers, and signage showing traffic detour plans, haul routes, hours of operation, protective devices, warning signs and access to abutting properties would further reduce any potential impact.

Timing/Implementation: Prior to building permit issuance.

Enforcement/Monitoring: City of Moorpark Public Works and Community Development Departments

3.13.1.6 Level of Significance after Mitigation

Project specific and cumulative residual impacts would be less than significant with mitigation.

3.13.3 LAW ENFORCEMENT SERVICES

3.13.3.1 Existing Conditions

Staffing and Facilities Police services for the City of Moorpark are provided through contract with the Ventura County Sheriff's Office. Full municipal law enforcement services are provided by the Sheriff's Office; no other agency provides additional or related police services. The Ventura County Sheriff's Office station serving Moorpark is located at 610 Spring Road in Moorpark and is known as the Moorpark Police Services Center (MPSC). The MPSC has four divisions: Administration, Investigations, Patrol, and Traffic.[3]

The **Administration Division** is made up of a Sheriff's Captain who serves as the Chief of Police for the City of Moorpark as well as the commanding officer for the county areas served by the MPSC. A Sergeant serves as the Assistant Chief of Police. A Senior Deputy is assigned to crime prevention and community services. Three professional staff members support the MPSC with administrative functions such as payroll, timekeeping, and records requests. The Volunteers in Policing program is also managed by the Administration Division.

The **Investigations Division** is led by a Detective Sergeant. Two detectives, two Special Enforcement Deputies, a School Resource Officer, and an Investigator are assigned full time to this division for case

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3 Ventura County Sheriff's Office Divisions, Patrol Operations, Moorpark, https://www.venturasheriff.org/divisions/patrol-services/moorpark/ accessed July 2, 2021.

follow-up as well as to conduct proactive policing. The School Resource Officer also supervises the Explorer program.

The **Traffic Division** consists of two motorcycle officers, one of which serves as the unit's supervisor (sergeant). Two Deputies are also assigned to the unit as a DUI enforcement / traffic officers. Three Cadets round out the unit and are responsible for parking enforcement, report writing, and other station duties.

The largest division at the Moorpark station is **Patrol**. Four Sergeants and 25 Deputies provide 24/7 patrol coverage to the City of Moorpark as well as the unincorporated areas of Moorpark, Simi Valley, and the Santa Rosa Valley.

The MPSC also houses the California Highway Patrol's East County sub-station, providing law enforcement services on state highways and unincorporated county roads in eastern Ventura County. This unique shared facility, the only such shared law enforcement facility in California, provides for the opportunity of high visibility patrol as patrol cars come and go while serving in their respective State, County, and City areas of responsibility.[4]

The Ventura County Sheriff's Office target officer-to-population ratio for the City is 1 to 1,639. Current average response times for calls within the City of Moorpark are 6.44 minutes for emergency calls and 16.43 minutes for non-emergency calls. The response times are averaged throughout the City, and are based on the elapsed time between the call for service and the time the deputy arrives on the scene. The goal response times are under 10 minutes for emergencies and under 20 minutes for non-emergencies and the Sheriff's Office met their goals 88% and 78% of the time, respectively. [5]

3.13.3.2 Thresholds of Significance

According to Appendix G of the *State CEQA Guidelines* (Environmental Checklist Form), a project could have a significant impact when it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives.

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4 Captain Garo Kuredjian, Ventura County Sheriff's Office, personal communication, August 2, 2018.

5 Ibid.

Personnel, as defined by Ventura County, consists of those sworn deputy sheriffs and all support personnel, both sworn and non-sworn, used to protect the citizens of Ventura County, as they relate to the sheriff's jurisdiction. Equipment consists of those items used by the personnel in the performance of their duties. Law enforcement facilities comprise all buildings used to house the personnel and equipment of the sheriff for the purpose of performing their duties. With regards to law enforcement personnel, the Sheriff's Office is currently working with an average officer-to-population ratio of 1 to 1,639. From a standpoint of officer-to-population ratio, the City of Moorpark uses this as the minimally acceptable level. As a general rule, the distance between patrol area stations can be used to determine the need for additional law enforcement facilities in large development areas. However, the subjective variables of calls of service, area to be served, and response times must be considered when dealing with a project's impact on law enforcement.[6]

3.13.3.3 Project Impacts

Impact PS-2 **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?**

Less than Significant with Mitigation

Construction

Site development and construction would not normally require services from the Sheriff's Office, except in the cases of trespassing, theft, or vandalism. Such activities at a construction site are usual, but do not typically place undue demands on law enforcement services. Construction activity would increase traffic both on and adjacent to the Project site during working hours because commuting construction workers, trucks, and other large construction vehicles would be added to normal traffic during the buildout period. Slow-moving, construction-related traffic along local roadways may reduce optimal traffic flows and could conceivably delay emergency vehicles or contribute to a vehicle accident. However, this potential is considered less than significant given the periodic and temporary nature of construction-related traffic. Implementation of standard construction traffic control procedures, such as the use of flagmen, and signage showing traffic detour plans, haul routes, hours of operation, protective devices,

6 Captain Garo Kuredjian, Ventura County Sheriff's Office, personal communication, August 2, 2018.

warning signs, and access to abutting properties during construction as outlined in **Mitigation Measure PP-2**, impacts would be less than significant.

Operation

At buildout of the Specific Plan, up to 755 dwelling units, with additional recreational and open space uses would be constructed. Based on the average household size of 3.3 persons for the City of Moorpark, buildout of the specific plan would result in the addition of approximately 2,492 persons to the City's population. Using the Ventura County standard of 1.0 officer to 1,639 persons it is estimated that implementation of the specific plan would generate a need for approximately two additional officers. Staffing levels for police protection services are determined through the City's budget process.[7]

In addition, the specific plan would include approximately 55.11 acres of open space. The Moorpark Police Department has indicated that open space areas can become crime corridors if not properly designed. Residences normally back up to these spaces, and the ability of the police to conduct surveillance over these areas is impeded by fencing and landscaping. As such, mitigation measures would be required to address security issues associated with the open space component of the specific plan.

The developer of the proposed project would be required to pay a police facilities fee, currently $1,167.00 per residential unit, that is required of all new developments to mitigate the increased need for police services.[8] The developer would also be required to implement security recommendations regarding site security, lighting, landscaping, building access and visibility, street circulation, building design, and defensible space, which are identified in the form of planning department conditions determined by the police department during the site plan review process. Compliance with these existing requirements would ensure that the proposed project would not significantly impact the police department's service abilities.[9]

3.13.3.4 Cumulative Impacts

The proposed project and other planned and approved developments throughout the City would cumulatively increase the need for services from the police department. However, as stated earlier, all new developments are required to pay a police facilities fee to mitigate the increased need for police

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7 Captain Garo Kuredjian, Ventura County Sheriff's Office, personal communication, August 2, 2018.

8 City of Moorpark. 2020. 2020 City of Moorpark Typical Development Contributions and Other Agency Contact Information.

9 Captain Garo Kuredjian, Ventura County Sheriff's Office, personal communication, August 2, 2018.

facilities in addition to implementing security recommendations during the site plan review process. It is also expected that with the collection of on-going property tax revenues generated by all new development, the City would contract for additional Sheriff's officers to provide adequate police protection as these cumulative projects build out. The police department would not be significantly impacted.

3.13.3.5 Mitigation Program

Standard Conditions and Requirements

- Concurrently with the issuance of a building permit, the Police Facilities Fee must be paid to the Building and Safety Division in accordance with City Council adopted Police Facilities Fee requirements in effect at the time of building permit application.

- Prior to initiation of the building plan check process for the project, the applicant shall submit plans in sufficient detail to the Police Department for review and approval of defensible space concepts to reduce demands on police services. To the degree feasible and to the satisfaction of the Community Development Director and the Police Chief, public safety planning recommendations must be incorporated into the project plans. The applicant shall prepare a list of project features and design components that demonstrate responsiveness to defensible space design concepts.

Mitigation Measures

PP-1: Open spaces shall be designed to facilitate easy viewing from patrol cars and by citizens on adjacent streets. To the extent possible, and without destroying the character of the open space areas, access streets and trails shall be incorporated into open spaces for occasional patrols and other emergency vehicles. In no event does this require an all-weather surface to be provided on open space trail areas located away from project roadways.

Timing/Implementation: Prior to approval of the Tentative Tract Map.

Enforcement/Monitoring: City of Moorpark Public Works and Community Development Departments

PP-2: To reduce emergency vehicle delays during construction, the applicant shall implement standard construction traffic control procedures, such as the use of flaggers, and signage showing traffic detour plans, haul routes, hours of operation, protective devices, warning

signs, and access to abutting properties would further reduce any potential impact. (This mitigation measure is identical to **FP-1**)

Timing/Implementation: Prior to building permit issuance.

Enforcement/Monitoring: City of Moorpark Public Works and Community Development Departments

3.13.3.6 Level of Significance after Mitigation

Project specific and cumulative residual impacts would be less than significant with mitigation.

3.13.4 SCHOOLS

3.13.4.1 Existing Conditions

Enrollment and Capacities. The Moorpark Unified School District (MUSD) provides public education services to the project vicinity. MUSD includes five elementary schools, one K-8 preparatory school, two middle schools, one high school, one continuation high school, and one high school program at Moorpark College. Elementary schools in the MUSD are Peach Hill Academy, which serves grades kindergarten through four; Mountain Meadows 21st Century Learning Academy, which serves grades kindergarten through second; Walnut Canyon School and Flory Academy, which serve grades kindergarten through five; and Arroyo West School which serves grades three through five. The two middle schools are Chaparral Middle School and Mesa Verde Middle School, both of which serve grades six through eight. Moorpark High School serves grades nine through twelve, Community High School serve grades ten through twelve, and the High School at Moorpark College serves grades eleven and twelve.

The design capacities and existing enrollments for each school level in MUSD are listed below in **Table 3.13-1, 2019-2020 School Capacities and Enrollments**. As district-wide enrollment has continued to decrease, a more recent fee justification study has not been necessary. As shown below, existing capacity exists at all school levels.

Table 3.13-1
2019–2020 School Capacities and Enrollments

School Level	Facilities Capacity	Student Enrollment	Excess/(Shortage) Capacity
Elementary School (Grades K-5)	3,602	2,695	907
Middle School (Grades 6-8)	1,119	1,447	(328)
High School (Grades 9-12)	2,903	1,928	975
Total	**7,624**	**6,070**	**1,554**

Source: Moorpark Unified School District, Interpersonal Communication on March 6, 2020.

Presently, students from the project area attend Walnut Canyon Elementary School, Mountain Meadows Elementary School, Arroyo West Elementary School, Chaparral Middle School, and Moorpark High School. **Figure 3.12-1** illustrates the location of the schools that would serve the project.

As new schools are built and changes in school enrollments occur in MUSD, the enrollment boundaries between the schools are adjusted. Enrollments at each school are affected by growth within the project area, and it is not known which schools future project-generated students would attend. The MUSD does not impose any boundaries for elementary schools. Therefore, this analysis focuses on district-wide capacity.

School Funding. The School Facilities Act (Government Code Section 65995) was enacted to allow school districts to assess developer fees to help cover the cost of constructing or reconstructing school facilities necessary to accommodate increases in student population. It also set out to limit the amount that local agencies could require of developers to mitigate the impact of development on school facilities. Current developer fees are calculated at the rate of $3.36 per square foot of assessable space for residential construction.[10]

Additional mechanisms available to school districts to fund school construction include community assessment districts and general obligation bonds. MUSD has an active bond for funding necessary improvements.

Existing Student Generation at the Project Site. The Project site does not currently generate any students within MUSD.

[10] Moorpark Unified School District – Business Division, Developer Fees, https://moorpark-ca.schoolloop.com/file/1486205590706/1509780305418/4020549720757398875.pdf, accessed July 2, 2021

3.13.4.2 Thresholds of Significance

According to Appendix G of the *State CEQA Guidelines* (Environmental Checklist Form), a project could have a significant impact when it would:

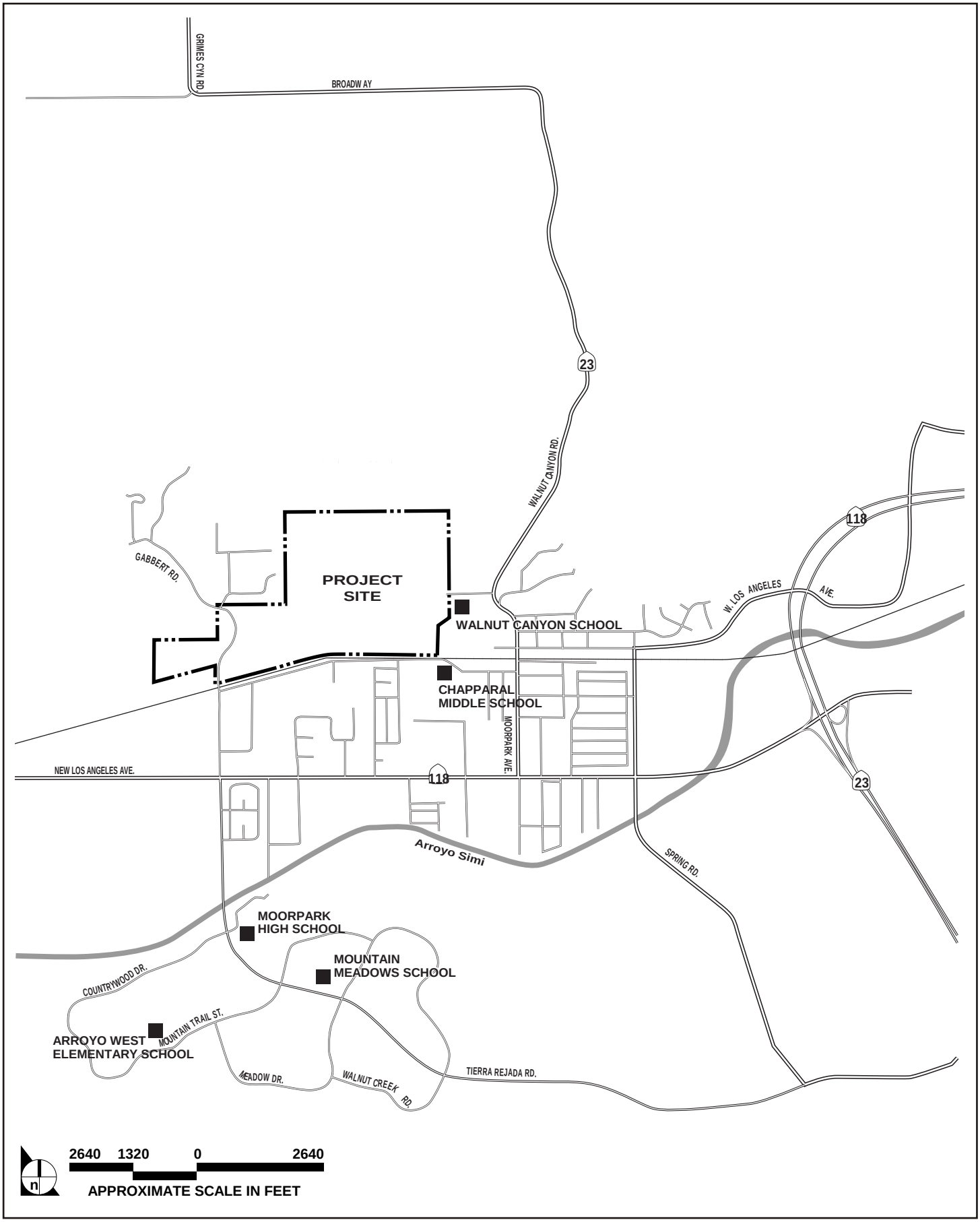
- Result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives of the school district.

3.13.4.3 Project Impacts

Impact PS-3 **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives of the school district?**

Less than Significant

Buildout of the specific plan would result in up to 427 single-family dwelling units and 328 multi-family dwelling units. Occupancy of the residential structures would result in the generation of additional students into MUSD. Based upon information provided by MUSD, an estimate of the project's student population has been calculated. The generation rates, which vary according to grade level, represent an estimate of the average number of students generated per residential dwelling unit. The number of students expected to be generated by the project is summarized below in **Table 3.13-2, Project Student Generation**. As shown, 419 students are projected to be generated by project buildout, including 195 elementary, 92 middle school, and 132 high school students.



SOURCE: Impact Sciences, 2008

FIGURE **3.13-1**

School Locations

IMPACT SCIENCES

1318.003•05/2020

Table 3.13-2
Project Student Generation

School (Grade)	Total Residential Units	Student Generation Rate	Project Students
Single-Family Residential			
Elementary School (K–5)	427 single-family residential	0.2926 students/unit	125
Middle School (6–8)	427 single-family residential	0.1517 student/unit	65
High School (9–12)	427 single-family residential	0.2286 students/unit	98
Multi-Family Residential			
Elementary School (K–5)	328 multi-family residential	0.2118 students/unit	70
Middle School (6–8)	328 multi-family residential	0.0814 student/unit	27
High School (9–12)	328 multi-family residential	0.1031 students/unit	34
Total			**419**

Source: Moorpark Unified School District, Residential Development School Fee Justification Study, 2013; Impact Sciences 2021

Table 3.13-3, Future School Capacities and Enrollments with Proposed Project provides a comparison between current school capacity and district enrollment with the addition of students generated by the proposed project. As shown in **Table 3.13-3**, the addition of students generated by the project would result in a lack of elementary and middle school capacity in the MUSD. Any interference in the ability of the MUSD to meet the needs of students is considered a potentially significant impact. However, with payment of school fees by the project specifically collected to provide for additional school facilities as is required by SB 50 to MUSD, potential school impacts would be reduced to less than significant.

Table 3.13-3
Future School Capacities and Enrollments with Proposed Project

School Level	Facilities Capacity	Student Enrollment (with Proposed	Excess/(Shortage) Capacity
Elementary School (Grades K-5)	3,602	2,890	712
Middle School (Grades 6-8)	1,119	1,539	(420)
High School (Grades 9-12)	2,903	2,060	843

Source: Impact Sciences, 2021

3.13.4.4 Cumulative Impacts

As presented in **Table 3.13-4** and **Table 3.13-5**, the project's cumulative impact on schools is determined by adding the number of additional students to be generated by residential development under build out of the City General Plan to the number of additional students and necessary classrooms to be generated by the projects. Under buildout of the City's General Plan, residential development projects would generate, based on the student generation rates discussed previously, 5,000 elementary school students, 1,250 middle school students, and 2,500 high school students.

Table 3.13-4
Cumulative Projects Contributing to School Enrollment

Project	Land Use	Size	Elementary School (K–5)	Middle School (6–8)	High School (9–12)
Pacific Communities	Single Family Residential	283 Units	83	43	65
City Ventures	Single Family Residential	110 Units	32	17	25
John C. Chiu, FLP-N	Condominiums	60 Units	13	5	6
Essex Moorpark, LLC	Multi-Family Residential	200 Units	42	16	21
Birdsall Group, LLC	Single Family Residential	21 Units	6	3	5
Grand Moorpark/"Green Island Villas"	Condominiums	63 Units	14	5	7
Spring Road, LLC	Condominiums	95 Units	20	8	10
High Street Depot / Daly Group	Mixed Use (Apartments)	79 Units	17	7	8
Beltramo Ranch	Single Family Residential	52 Units	15	8	12
AHA Scattered Sites	Multi-Family Residential	56 Units	12	5	6
Moorpark 67 / Rasmussen	Single Family Residential	139 Units	41	21	32
Total			**295**	**138**	**197**

Source: Impact Sciences, 20210

Table 3.13-5
Cumulative Project School Impact

	Elementary School (K–5)	Middle School (6–8)	High School (9–12)
Future Students Cumulative Projects	295	138	197
Proposed Project	195	92	132
Total	**490**	**230**	**329**

Source: Impact Sciences, 2021

Project participation in SB 50 and collection of developer fees would mitigate project-specific impacts and the project's contribution to cumulative impacts on MUSD. This funding would offset the costs to construct new schools necessary to house the additional students generated by the project.

With respect to the significance of the cumulative impacts on schools caused by residential development under buildout under the City's General Plan, funding for the needed new schools, if necessary, may be provided through existing school facilities funding agreements or through other mechanisms, such as Section 65995, and/or future facilities funding agreements between MUSD and the developers of new residential projects. Assuming such mechanisms are implemented for each new residential development, cumulative impacts on schools caused by other future residential development after mitigation would be less than significant.

3.13.4.5 Mitigation Program

Standard Conditions and Requirement

- Prior to issuance of building permits for each building, the applicant shall provide written proof to the Community Development Department that all legally mandated school impact fees applicable at the time of issuance of a building permit have been paid to the Moorpark Unified School District.

Mitigation Measures

No mitigation is required.

3.13.4.6 Level of Significance after Mitigation

Project specific and cumulative residual impacts would be less than significant.

3.13.5 LIBRARIES

3.13.5.1 Existing Conditions

In January 2007, the City of Moorpark reopened the library on 699 Moorpark Avenue as a City facility. The City of Moorpark Library was previously owned and operated by the County of Ventura Library Services Agency and known as the Moorpark Library. The Moorpark City Library is 7,800 square feet and contains approximately 45,846 volumes (books, periodicals, DVDs, etc.) and 16 public-access computers with Wi-Fi throughout the building. The library's operating hours are Monday through Thursday from 10:00 AM to 8:00 PM, Friday and Saturday from 10:00 AM to 5:00 PM, and Sunday from 1:00 PM to 5:00 PM. The library currently employs 7.5 full-time equivalent employees.[11] A new library, which would approximately double the size of the current facilities, is currently in the planning stages. The proposed library would be about 18,000 square feet and would better serve the current population of Moorpark.

Five independent public library jurisdictions provide services within Ventura County: the County of Ventura Library Services Agency, the City of Oxnard, the City of Santa Paula, City of Camarillo, and the City of Thousand Oaks. The Ventura County Law Library is also open to the public. The County of Ventura Library Services Agency operates numerous library facilities and services throughout the County of Ventura and its incorporated areas.

Funding and General Levels of Service. Library operations are funded by library property tax, state Public Library Fund, and fines and fees. Capital purchases and improvements are funded by the City Library Facility Developer Fee. The Library Facility Developer Fee is based on estimates contained in the 1990 US Census data, the library's needs assessment, and the City's projected growth. Library facilities fees in the City of Moorpark are currently calculated at $925.68 per unit for single-family residential development and $596.91 per unit for multi-family residential development.[12] The Library Fee Ordinance also allows the City to impose an administrative fee of approximately $25.00. All fees must be paid prior to the issuance of any building permits.

The City uses the standard of 0.5 square feet per capita to calculate appropriate library space and two items per capita to determine appropriate collection size. Based on an estimated population of 36,802 persons within the City of Moorpark, there are currently 1.2 volumes and 0.2 square feet of library space

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11 Jessica Sandifer, Community Services Manager, City of Moorpark, personal communication, October 5, 2021.

12 City of Moorpark. 2020. 2020 City of Moorpark Typical Development Contributions and Other Agency Contact Information.

per resident in the City. The proposed library expansion would alleviate some of the shortage of library space.

3.13.5.2 Thresholds of Significance

According to Appendix G of the *State CEQA Guidelines* (Environmental Checklist Form), a project could have a significant impact when it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives.

3.13.5.3 Project Impacts

Impact PS-4 **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?**

Less than Significant with Mitigation

The proposed project would involve the development of 755 dwelling units with a projected population increase of 2,492. Project development would lower the current volume per resident ratio in the City and increase the demand for library facilities provided in the City. This will increase the existing need for facilities and materials (e.g., books, magazines, periodicals, videos, computers, etc.). Consequently, project impacts on library facilities would be considered significant. The project applicant would be required to pay library facilities fees to the City of Moorpark, in effect at the time of and prior to the issuance of building permits. The library facilities fees will be calculated as shown in **Table 3.13-6**.

Table 3.13-6
Library Facilities Fees for the Specific Plan

Land Use	Number of Units	Rate	Total Fee
Single-family Residential	427 du	$925.68	$395,265.36
Multi-family residential	328 du	$596.91	$195,786.48
Total	**755 du**		**$591,051.84**

Source: Impact Sciences, 2021

Should the final specific plan result in the development shown in **Table 3.13-6**, the applicant would be required to pay the Library Fee in effect at the time of permit issuance, currently $591,051.84, along with an administrative fee of approximately $25.00, to the City to compensate for the residential development. The City would use the fees for the purposes of improving library facilities to meet the increased demand on library services generated by project development. As a result, the project impact to library facilities would be less than significant.

3.13.5.4 Cumulative Impacts

Development of the proposed specific plan, together with other reasonably foreseeable projects, would result in significant cumulative impacts to library services in the City of Moorpark. However, as the new library is already being planned and would be approximately double the size of the current facility, the payment of development fees by each individual project would sufficiently reduce cumulative impacts to less than significant.

3.13.5.5 Mitigation Program

Standard Conditions and Requirements

- Concurrent with the issuance of a building permit, the Library Facilities Fee must be paid to the Building and Safety Division in accordance with City Council adopted Library Facilities Fee requirements in effect at the time of building permit application.

Mitigation Measures

No additional mitigation measures are required.

3.13.5.6 Level of Significance after Mitigation

Project specific and cumulative residual impacts would be less than significant with the payment of the Library Fees in effect at the time of permit issuance.

3.13.6 CONCLUSION

The proposed Hitch Ranch Specific Plan project is consistent with the public services goals and polices set forth in the *City of Moorpark General Plan*. The analysis provided in this section has identified potential effects associated with project implementation, the project design features that will be provided as a part of the specific plan, and measures that will be required to mitigate any significant impacts.

3.14 RECREATION

INTRODUCTION

This section of the environmental impact report (EIR) addresses the availability of parks and recreational facilities in the project area, and the Proposed Project's anticipated impacts on these facilities. Where impacts are identified to be significant, mitigation measures are recommended to reduce them to acceptable levels. The following analysis is based on information contained in the Open Space, Conservation and Recreation Element of the City of Moorpark General Plan, Land Use Element of the City of Moorpark General Plan; and correspondence with the City of Moorpark Parks, Recreation, and Community Services Department.

3.14.1 EXISTING CONDITIONS

3.14.1.1 Citywide Parks and Recreation Facilities

The City of Moorpark Parks, Recreation, and Community Services Department offers a variety of park facilities and recreation activities to City residents. Services available in the City's neighborhood and community parks include ball fields, multipurpose fields, basketball courts, volleyball courts, picnic pavilions, barbeque, picnic tables, play equipment, meeting rooms, and tennis courts.

The City of Moorpark classifies park facilities into six categories. These categories, based on National Parks and Recreation Association criteria modified to serve the Moorpark region are as follows: Miniparks, Neighborhood Park, Community Park, Regional Park, Open Space, and School District Facilities. The City's primary focus is neighborhood, community, and regional parks. The following briefly describes the characteristics of each type of park, as indicated in the City's general plan.

Miniparks. Miniparks are very localized parks with a maximum size of 2.5 acres. They are intended to serve a population of 500 to 2,500 and consist of tot-lots, picnic tables, and landscaping. Because of the high cost to maintain these parks, they are developed in limited situations. The need for mini parks is often met by private homeowners' associations.

Neighborhood Parks. Neighborhood parks range from 2.5 to 16 acres. The optimum service area for neighborhood parks is approximately 0.5-mile radius, normally serving 2,500 to 5,000 persons. The minimum feature of a neighborhood park shall include a baseball diamond; open turf for soccer, touch football, or other field games; tot-lots; picnic facilities with barbecue features; open space for informal play; restrooms; and parking.

Community Park. A community park consists of 16 acres or more and serves a population of approximately 15,000. The service area will be no more than 3 miles in radius. A community park includes features to serve an entire family and adequate parking facilities to accommodate a high flow of vehicular traffic. Features of a community park include lighted and unlighted playfields for soccer, softball, and baseball; courts for basketball, tennis, volleyball, handball, and other court games; preschool apparatus; hopscotch courts; and play apparatus such as tetherball for older children. A community park should have a multipurpose recreational building, including a gymnasium for basketball and other indoor activities. Community parks include areas for individual picnics and groups, and open space for other passive leisure activities. Swimming facilities may also be included if deemed appropriate.

Regional Park. Regional parks generally exceed 50 acres in size and should be located within a 1-hour drive from the City of Moorpark. Typical facilities of regional parks include campgrounds, hiking trails and nature study areas, beaches, lakes, and golf courses. Although the City of Moorpark is not responsible for the acquisition, development, or maintenance of regional parks, the City will cooperate with Ventura County to ensure that the regional park needs of the City are met.

Special Use Areas. Special use areas are sites often occupied by a specialized recreation facility. Some uses that fall into this category include waterfront parks, boat ramps, botanical gardens, community gardens, single purpose sites used for a particular field sport, or sites occupied by recreation buildings.

Linear Parks. Linear parks are developed landscaped areas and other lands that follow linear corridors such as rivers, creeks, abandoned railroad rights-of-way, canals, powerlines, and other elongated features. This type of park usually contains trails, landscaped areas, viewpoints, and seating areas.

Natural Open Space. Natural open space is defined as undeveloped land primarily left in its natural form with recreation uses as a secondary objective. It is usually owned or managed by a governmental agency and may or may not have public access. This type of land may include wetlands, steep hillsides, or other similar spaces. In some cases, environmentally sensitive areas are considered open space and can include wildlife habitats, stream, and creek corridors, or unique and/or endangered plant species.

Undeveloped Land. This land is undeveloped and has not yet been designated for a specific park use.

3.14.1.2 Parkland Inventory

There are 19 parks with a total of approximately 150.57 acres of developed parklands in the City. The Land Use Element of the City's general plan indicates that total designated parkland within the City is 197 acres; of that, approximately 150.57 acres are neighborhood and community parklands. The locations,

acreage, and types of services of developed parks and recreation facilities within the City of Moorpark are presented in **Table 3.14-1**.

All 19 parks shown in **Table 3.14-1**, in addition to the school district facilities, are public facilities accessible to the proposed specific plan. In addition to the above listed community and regional parks, existing and proposed regional facilities in the City's surrounding areas contribute to community recreation opportunities. These include Happy Camp Canyon Regional Park and Oak Park, both of which are County regional parks.

3.14.1.3 City of Moorpark Parks and Recreation Standards

In the State of California, the primary avenue by which local jurisdictions set parkland and recreation standards and requirements for new development, or obtain funds for the development of parks and recreation, is via the Quimby Act. The Quimby Act was established by the California Legislature in 1965 in response to California's increased rate of urbanization and the need to preserve open space and parkland for growing communities. Prior to subdividing a parcel of land, the developer must dedicate a portion of land and/or pay a fee for the purpose of providing park and recreational facilities to serve future residents of the property being subdivided. According to the City of Moorpark Parks and Recreation Master plan, the adopted City standard for parks is 5-acres of parkland per 1,000 residents.[1]

Table 3.14-1
Public Parks and Recreational Facilities Located in the City of Moorpark

Name	Location	Facilities	Park Acreage
Arroyo Vista Community Park	Countrywood and Tierra Rejada	8 soccer fields, 4 softball fields, football field, 8 tennis courts, 2 large pavilions, 2 playgrounds, restrooms, multi-use court, 2 snack bars.	69
Campus Canyon Park	Collins and Hearon Drive	1 ball field, 1 multi-purpose field, basketball court, 1 picnic pavilion, picnic tables, BBQs, playground, restrooms.	6.0
Campus Park	Hartford and Harvard Street	1 picnic pavilion, BBQs, playground, half-basketball court, restrooms	2.5
College View Park	Campus Park and College View	Multi-purpose field-, 1 picnic pavilion, picnic tables, BBQs, basketball court, playground, dog park, restrooms.	5.0
Community Center Park	799 Moorpark Avenue	Picnic tables, BBQs, playground,	0.5

1 City of Moorpark Parks and Recreation Master Plan, approved by Moorpark City Council June 3, 2009. Included as Appendix 3.14 to this EIR.

Name	Location	Facilities	Park Acreage
Country Trail Park	12301 1/2 Mountain Trail Street	BBQs, play lot, tot lot, walking trail	8.0
Glenwood Park	Tierra Rejada and Harvester Street	Multi-purpose field-, 2 basketball courts, 1 picnic pavilion, picnic tables, BBQs, playground, restrooms.	4.5
Magnolia Park	296 Charles Street	Playground, picnic tables, benches	0.33
Mammoth Highlands Park	7000 Elk Run Loop	1 picnic pavilion, BBQs, playground, 1 basketball court, 1 tennis court, multi-use field, restrooms,	7.5
Miller Park	4530 Miller Parkway	1 softball field, multi-use field, 2 tennis courts, BBQs, play lot, tot lot, 1 picnic pavilion, walking trail, restrooms.	6.5
Monte Vista Nature Park	4201 Spring Road	Picnic tables, BBQs, walking trails.	5.0
Mountain Meadows Park	Mountain Meadow off Tierra Rejada Road.	2 softball fields, multi-purpose field, 2 basketball courts, 1 picnic pavilion, picnic tables, BBQs, playground, restrooms.	8.0
Peach Hill Park	Peach Hill and Christian Barrett	1 softball fields, multi-purpose field, 1 picnic pavilion, 1 basketball court, picnic tables, BBQs, playground, restrooms.	10.0
Poindexter Park	500 Poindexter Avenue	2 baseball fields, 2 playgrounds, rest rooms, 1 large picnic pavilion, picnic tables, BBQ's, horseshoe pits, 1 basketball court, skate park	7.5
Tierra Rejada Park	Mountain Trail and Tierra Rejada	Multi-purpose field, 1 basketball court-, 1 picnic pavilion, picnic tables, BBQs, playground, restrooms, 3 tennis courts.	8.0
Veteran's Memorial Park	Spring Road and Flinn Avenue	Passive, memorial plaque and fountain	0.4
Virginia Colony Park	14507 Condor Drive	Picnic tables, BBQs, playground	1.0
Villa Campesina	4704 ½ Leta Yancy Road	BBQs, play lot, half basketball court	0.5
Walnut Acres Park	161 2nd Street	Playground, grass area, picnic benches	0.34
Total Parkland			**150.57**

Source: City of Moorpark, 2019.

3.14.2 REGULATORY FRAMEWORK

3.14.2.1 State Laws and Regulations

Quimby Act of 1965

The Quimby Act was established by the California State Legislature in 1965 and codified as California Government Code Section 66477. The Quimby Act allows the legislative body of a city or county, by ordinance, to require the dedication of land or impose a requirement of the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative tract map or parcel map. Under the Quimby Act, requirements for parkland dedications are not to exceed three acres of parkland per 1,000 persons residing within a subdivision, and in-lieu fee payments shall not exceed the proportionate amount necessary to provide three acres of parkland, unless the amount of existing neighborhood and community parkland exceeds that limit.

California Public Park Preservation Act of 1971

The primary instrument for protecting and preserving parkland is the State Public Park Preservation Act of 1971 (Pub. Resources Code, §§ 5400–5409). Under the Act, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

State Open Space Standards

State planning law (Government Code Section 65560) provides a structure for the preservation of open space by requiring every city and county in the State to prepare, adopt, and submit to the Secretary of the Resources Agency a "local open-space plan for the comprehensive and long-range preservation and conservation of open space land within its jurisdiction." The following open space categories are identified for preservation:

- **Open space for public health and safety**, including, but not limited to, areas that require special management or regulation due to hazardous or special conditions.
- **Open space for the preservation of natural resources**, including, but not limited to, natural vegetation, fish and wildlife, and water resources.
- **Open space for resource management and production**, including, but not limited to, agricultural and mineral resources, forests, rangeland, and areas required for the recharge of groundwater basins.

- **Open space for outdoor recreation,** including, but not limited to, parks and recreational facilities, areas that serve as links between major recreation and open space reservations (such as trails, easements, and scenic roadways), and areas of outstanding scenic and cultural value.

- **Open space for the protection of Native American sites**, including, but not limited to, places, features, and objects of historical, cultural, or sacred significance such as Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property (further defined in California Public Resources Code Sections 5097.9 and 5097.993).

Mitigation Fee Act

The California Mitigation Fee Act, Government Code sections 66000, *et seq.*, allows cities to establish fees to be imposed on development projects for the purpose of mitigating the impact of development on a city's ability to provide specified public facilities. In order to comply with the Mitigation Fee Act a City must follow the following primary requirements: (1) Make certain determinations regarding the purpose and use of a fee and establish a nexus or connection between a development project or class of project and the public improvement being financed with the fee; (2) Segregate fee revenue from the General Fund in order to avoid commingling of capital facilities fees and general funds; (3) For fees that have been in the possession of a City for five years or more and for which the dollars have not been spent or committed to a project, the City must make findings each fiscal year.

3.14.2.2 Local

The goals and policies of the *City of Moorpark General Plan* that are applicable to the proposed Hitch Ranch Specific Plan project are listed below.

Land Use Element

Goal 12: Ensure that a full range of public facilities and services are provided to meet the needs of the community.

Policy 12.4: New residential development shall include adequate public and private open space and recreational uses to serve residential neighborhoods.

Policy 12.5: The City's current standard of five acres of parkland per 1,000 persons, or such higher maximum standard allowed by State law, shall be maintained consistent with the City's Open Space and Recreation Element to ensure that adequate passive/active parkland is provided in

conjunction with future infill, redevelopment, and new development projects.

Policy 12.8: Any proposed project shall be required to contribute its fair share of the cost of providing adequate public services and facilities.

Open Space, Conservation and Recreation Element

Goal 2: Acquire, provide, and maintain public parkland for both passive and active use that is equally accessible to the community on a neighborhood, community, and regional basis.

Policy 2.2 Encourage and ensure equal access to parklands for all residents, including the young, handicapped and elderly.

Policy 2.3 Encourage the development and provision of recreational activities that are both active and passive; e.g., hiking, biking, running, sightseeing, swimming.

Policy 2.5 Provide recreational/leisure parklands at the standards set in the Moorpark Parks and Recreation Master Plan.

Policy 2.6 Acquire and provide parklands in areas where existing demand is the greatest in proportion to population.

Policy 2.8 With funds received from in-lieu payments to the City, develop parklands and the trail system, consistent with the needs identified in the Park and Recreation Master Plan.

Goal 6: Maintain and enhance the open space and designated nongrowth areas for conservation, agriculture, ranching, recreation, leisure and aesthetic purposes.

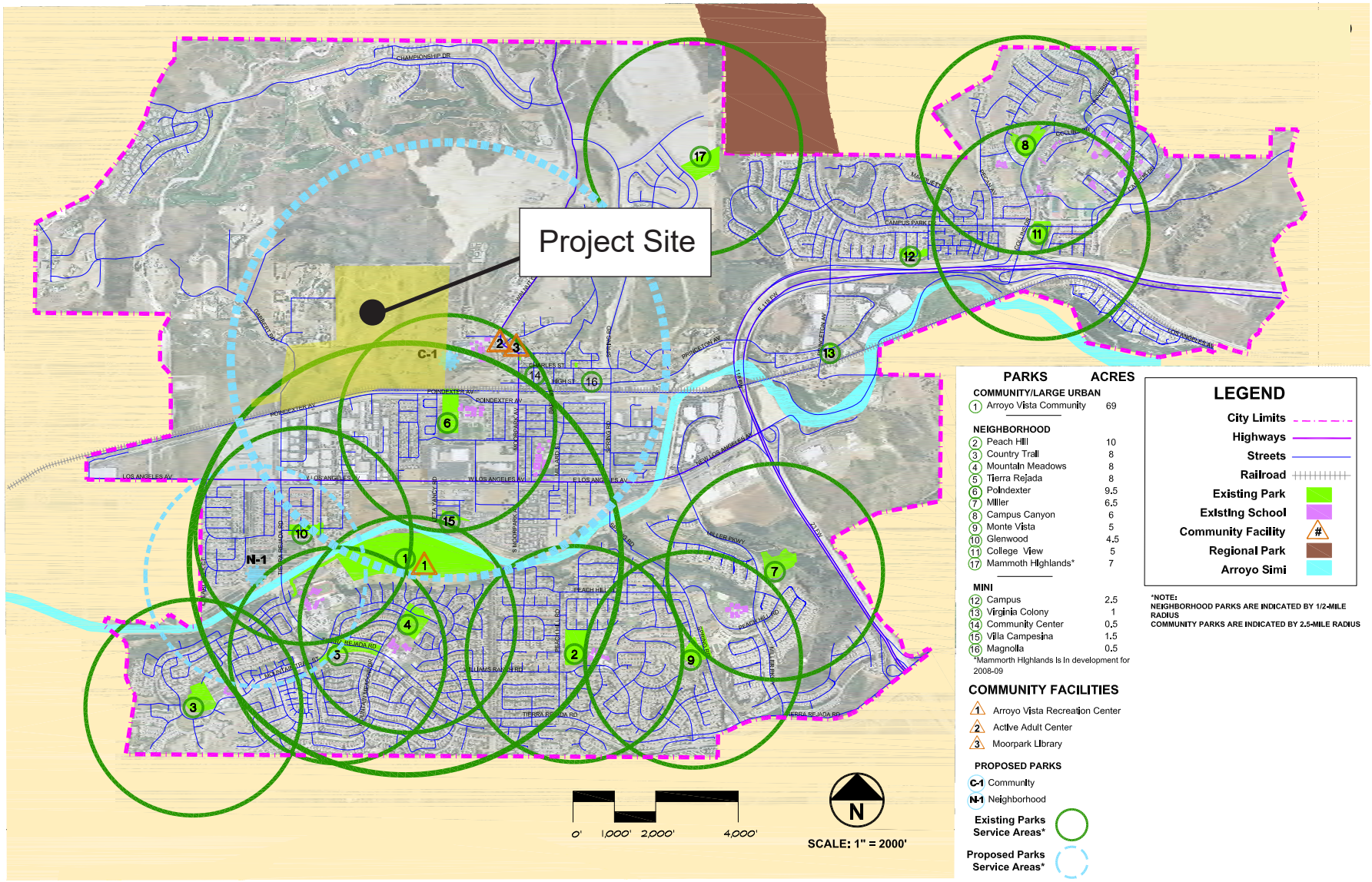
Policy 6.1 Encourage public advocacy in programs to locate and retain areas for use as open space through dedication or deed restriction.

Policy 6.2 Maintain open space lands that are well suited to their intended uses and that will result in the most efficient use of land. All such lands should be designed and managed for the convenience, health, safety and pleasure

of intended users and should represent positive examples of open space planning and energy conservation.

City of Moorpark Parks and Recreation Master Plan

Adopted in 2009, the City's Parks and Recreation Master Plan (PRMP) outlines the needs, goals, and current state of the approximately 150.57 acres of parkland throughout the City. The PRMP identifies the City standard for parks as 5-acres per 1,000 residents and the necessity to add 77.5 additional acres by 2025 to meet this goal. The PRMP includes measures for development and guidelines and policies for successful operation of these additional parks and recreational facilities. The PRMP also discusses coordination with the Moorpark Unified School District, Moorpark College, and private developers to share the costs of design, construction, operations and maintenance.



SOURCE: City of Moorpark, March 2008.

FIGURE **3.14-1**

IMPACT SCIENCES

City of Moorpark Parks and Recreation Master Plan Proposed Parks and Facilities

1318.001•12/2021

The PRMP identified a site on the Hitch Ranch Specific Plan site as a proposed location for an approximately 20-acre community park (refer to **Figure 3.14-1, City of Moorpark Parks and Recreation Master Plan Proposed Parks and Facilities)**. The Hitch Ranch Specific Plan project does not include the PRMP 20-acre community park. The project proposes to develop approximately 14-acres of active and passive public parkland along the High Street frontage of the site, provide approximately 5.6-acres of Hitch Ranch Homeowners Association (HOA) maintained private recreational facilities, develop over 5.5 miles of multi-use trails, connecting to offsite regional trails, and the provision of funding for additional sports fields at the City of Moorpark Arroyo Vista Community Park. A more detailed description of the Proposed Project recreational amenities is provided below in Section 3.14.4, Project Impacts.

As previously discussed, the characteristics of a community park generally consist of a site of 16-acres or more and includes a broad array of features to serve a variety of user groups, while providing adequate parking. Features should include lighted and unlighted playfields and sports courts; preschool apparatus (tot-lots); and play apparatus such as tetherball for older children. A community park should have a multipurpose recreational building, including a gymnasium for basketball and other indoor activities. Community parks should include areas for individual picnics and groups, and open space for other passive leisure activities. Swimming facilities may also be included if deemed appropriate.

3.14.3 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *State CEQA Guidelines* (Environmental Checklist Form), a project could have a significant impact when it would:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or

- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The City of Moorpark has established specific, quantitative criteria for determining a project's impact on the environment based on the Quimby Act requirements discussed above. This criteria requires the provision of 5-acres of parkland for every 1,000 residents. The proposed Specific Plan would have a significant impact on the environment if (1) the project fails to meet the overall persons to parkland ratio of 5-acres per 1,000 residents for the Specific Plan Area; and (2) the proposed project conflicts with any of the goals, policies, or objectives of the City pertaining to the development of parks and recreation.

3.14.4 PROJECT IMPACTS

Impact REC-1 **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

Impact REC-2 **Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

Less than Significant

Buildout of the Specific Plan, as proposed, would create up to 755 dwelling units. Based on an estimated 3.3 persons per household in the City of Moorpark, buildout of the Specific Plan would result in the addition of approximately 2,492 persons to the City's population. In accordance with City standards and parkland requirement of 5-acres per 1,000 population, the Specific Plan would require the dedication of approximately 12.5 acres or payment of fees in lieu of the approximately 12.5 acres, or some combination of the two, over the course of buildout.

As part of the Proposed Project, approximately 19.60 acres would be used for recreational purposes. Three private recreation areas are included as part of the Specific Plan. Planning Area 1 would include an approximately 3.12-acre private recreation facility, maintained by the Hitch Ranch HOA, which will include a clubhouse, and swimming pool. Within Planning Area 2, approximately 1.55 acres of passive recreation area is planned. Planning Area 3 would have a passive recreation area of approximately 0.93 acres. An approximately 6.77-acre public park is proposed south of Planning Area 2, along the southern edge of the Specific Plan area, along the High Street frontage. An additional approximately 7.23 acre passive public park area as part of Basin 3 is included within the offsite/City Donation Parcel. Additionally, the Specific Plan would provide over 5.5 miles of multi-use and equestrian trails in Hitch Ranch that would connect to local and regional trails.

"Natural Open Space" is defined as undeveloped areas within the Project site which would remain in their existing condition as a part of this project. A 200-foot fuel modification zone would occur between the natural area and on-site structures. A total of approximately 55.11 acres of natural open space is proposed by the project—the largest area (approximately 28.78 acres) being situated in the Open Space west of Gabbert Road. The Open Space is not proposed for development as part of this project, and therefore would be considered natural open space. Other natural open space areas are located in Planning Area 1 (approximately 17.33 acres), Planning Area 2 (approximately 7.40 acres) and Planning Area 3 (approximately 1.60 acres).

The Specific Plan will provide approximately 19.60 acres of developed recreation space, exceeding by approximately 7.10 acres the City requirement of approximately 12.5 acres based on of 5-acres of parkland for every 1,000 residents, impacts on parks and recreation would be reduced to levels considered less than significant.

3.14.5 CUMULATIVE IMPACTS

Buildout of the City's general plan would result in a total population of approximately 41,415. The amount of parkland needed, based on the City's standard of 5-acres per 1,000 persons, would be 207.08 acres. The location of future public parks would be determined by the City as funding is available. The exact location and size of future parks is not known at this time. With the implementation of appropriate mitigation measures such as Quimby Act fees and parkland dedication for each project, cumulative impacts are considered less than significant.

3.14.6 MITIGATION PROGRAMS

3.14.6.1 Standard Conditions and Requirements

Prior to issuance of Zoning Clearance for a building permit, the applicant shall submit to the Parks, Recreation and Community Services Department all private and public park development plans in accordance with Moorpark Municipal Code, and to the satisfaction of the City Parks, Recreation and Community Services Director.

3.14.6.2 Mitigation Measures

No mitigation is required.

3.14.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project-specific and cumulative residual impacts would be less than significant.

3.15 TRANSPORTATION

INTRODUCTION

The purpose of this section is to address the potential transportation impacts associated with the proposed specific plan.

On September 27, 2013, Governor Edmund G. "Jerry" Brown signed Senate Bill (SB) 743, which went into effect in January 2014 and directed the Governor's Office of Planning and Research (OPR) to develop revisions to the California Environmental Quality Act (CEQA) Guidelines by July 1, 2014, to establish new criteria for determining the significance of transportation impacts and define alternative metrics for traffic level of service (LOS). This started a process that has changed the requirements for transportation impact analyses under CEQA. These changes include elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as a basis for determining significant transportation impacts resulting from land use projects and plans in California.

On January 20, 2016, the Governor's Office of Planning and Research (OPR) released the Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA, which was an update to Updating Transportation Impacts Analysis in the CEQA Guidelines, Preliminary Discussion Draft of Updates to the CEQA Guidelines Implementing Senate Bill 743, which had been released on August 6, 2014. Of particular relevance was the updated text of State CEQA Guidelines Section 15064.3, which as discussed further below establishes vehicle miles traveled (VMT) as the most appropriate measure of transportation impacts. The Guidelines became effective on July 1, 2020. As such, automobile delay as measured by LOS or similar metrics is no longer to be considered a significant environmental impact. Further, Section 21099(a)(2) of the Public Resources Code states "Upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any." Therefore, as LOS is no longer an environmental impact under CEQA, all analysis provided in this section related to LOS is presented for informational purposes only, and not for the purpose of determining a significant environmental impact under CEQA.

This section is based on the findings of the following reports, included as ***Appendix 3.15*** *of this EIR:*

- ***Supplemental Traffic Analysis for the Hitch Ranch Project in the City of Moorpark****, conducted by Stantec, December 2021.*
- ***Traffic impact Analysis for the Proposed Hitch Ranch Specific Plan****, conducted by Impact Sciences, Inc. July 2021.*

3.15.1 EXISTING CONDITIONS

3.15.1.1 Transportation Study Area

As shown in **Figure 3.15-1, Project Setting,** the site is located north of Poindexter Avenue, beginning approximately 900 feet west of Moorpark Avenue (SR-23) and extending approximately 1,400 feet west of Gabbert Road. The Plan includes the extension of High Street on site, which connects Moorpark Avenue on the east and Gabbert Road on the west. The High Street extension will be built as a two-lane local collector roadway generally running parallel to Poindexter Avenue on the north side of the Union Pacific Railroad.

A local collector road (referred to herein as A Street) will be built on site from the extension of High Street approximately midway between Walnut Canyon Road and Gabbert Road to the extension of Meridian Hills Drive with a four-way stop sign intersection at North Hills Parkway. Meridian Hills Drive connects to Walnut Canyon Road through the Meridian Hills Tract 5187 development north of the Project site. The Plan will also extend Casey Road west into the site as far as A Street.

As shown in **Figure 3.15-2, Project Site Plan**, the proposed site plan assumes the dedication of corridor right-of-way and the construction of North Hills Parkway from Gabbert Road to the easterly boundary of Hitch Ranch. The "A" Street intersection with North Hills Parkway would provide full access to the site.

Regional access to the project vicinity is currently provided by the two State Route highways: Los Angeles Avenue (SR-118) and Moorpark Avenue (SR-23). Los Angeles Avenue provides access to the east to the Moorpark Freeway (SR-23) and the Ronald Reagan Freeway (SR-118): it also extends beyond the western city limits providing a route to communities in the western portion of Ventura County (e.g., the cities of Camarillo, Oxnard, and Ventura).

Bus service in the local vicinity of the Project site is provided by Moorpark City Bus. Existing bus routes operate along Los Angeles Avenue, Moorpark Avenue, High Street, Campus Park Drive, Tierra Rejada Road, Peach Hill Road, and Miller Parkway. Commuter rail service is also provided in the immediate vicinity.

Freeways

The Proposed Project would be constructed and operated in the southeastern portion of Ventura County within the incorporated City of Moorpark. Regional access to the study area is provided by State Route 118 (SR-118) and SR-23.

SR-118 is an east-west freeway that travels through the eastern portion of the City of Moorpark. Where SR-118 curves and starts to head north and south (just west of Princeton Avenue) the roadway turns into

SR-23. At the interchange with New Los Angeles Avenue, the SR-118 turns into Los Angeles Avenue, a six-lane arterial road. West of Tierra Rejada Road, the SR-118 begins narrowing, and west of Buttercreek Road becomes a two-lane collector. The SR-118 provides access to Ventura and Oxnard to the west, and Los Angeles' San Fernando Valley to the east. Caltrans traffic volume data estimate 20,200 vehicles east of Grimes Canyon Road (where the SR-118 is a local collector) and 82,000 west of Collins Drive (where the SR-118 is a freeway) in 2017. In the Ventura County CMP, the SR-118 is designated as a freeway north and east of the Los Angeles Avenue interchange and designated as a major road west of the Los Angeles Avenue interchange.

SR-23 is a north-south highway that provides access to the City of Fillmore to the north and Thousand Oaks to the south. Caltrans data on traffic volumes Caltrans data for 2017 show an annual average daily traffic of 72,000 vehicles north of Tierra Rejada Road (where the SR-23 is a freeway) and approximately 4,000 south of Spring Road (where SR-23 is a local collector).[1] South of the interchange of SR-118/SR-23/Los Angeles Avenue, the SR-23 is the Moorpark Freeway, designated as a freeway in the Ventura County CMP. North and west of the interchange, SR-23 is a local road (described below).

Local Roads

(*Refer to* ***Figure 3.15-3 City of Moorpark General Plan Circulation Element – Highway Network****, May 1992.*)

SR-23 is designated as a major road west and north of the Los Angeles Avenue interchange, running along Moorpark Avenue, Walnut Canyon Road, and Broadway Road.

Moorpark Avenue is a two-lane road designated as a north-south local collector road in the City's General Plan. It connects Walnut Canyon Road to the north and terminates to the south at the Arroyo River.

Walnut Canyon Road is a two-lane road designated as a north-south local collector road in the City's General Plan. It connects Broadway Road to the north with Moorpark Avenue to the south.

Broadway Road is a two-lane road designated as an east-west local collector road in the City's General Plan. It connects Grimes Canyon Road to the west with Walnut Canyon Road to the east.

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1 Caltrans, 2017 Traffic Volumes accessible at https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017/route-22-33

Gabbert Road is a north-south two-lane local collector road in the City's General Plan that provides access to residences north of Poindexter Avenue, and turns into Tierra Rejada Road south of Los Angeles Avenue. Gabbert Road bisects the western portion of the Project site.

High Street is a two-lane road designated as an east-west local collector road in the City's General Plan.

Casey Road is a two-lane road designated as an east-west local collector road in the City's General Plan. This two- to three-lane road starts at Walnut Canyon Road to the east and terminates in a cul-de-sac at Walnut Canyon Elementary School, at the eastern boundary of the Project site. It will be extended from its current western terminus at Walnut Canyon Elementary School westward to Street "A." Casey Road would provide primary east-west access to the eastern portion of the Project site.

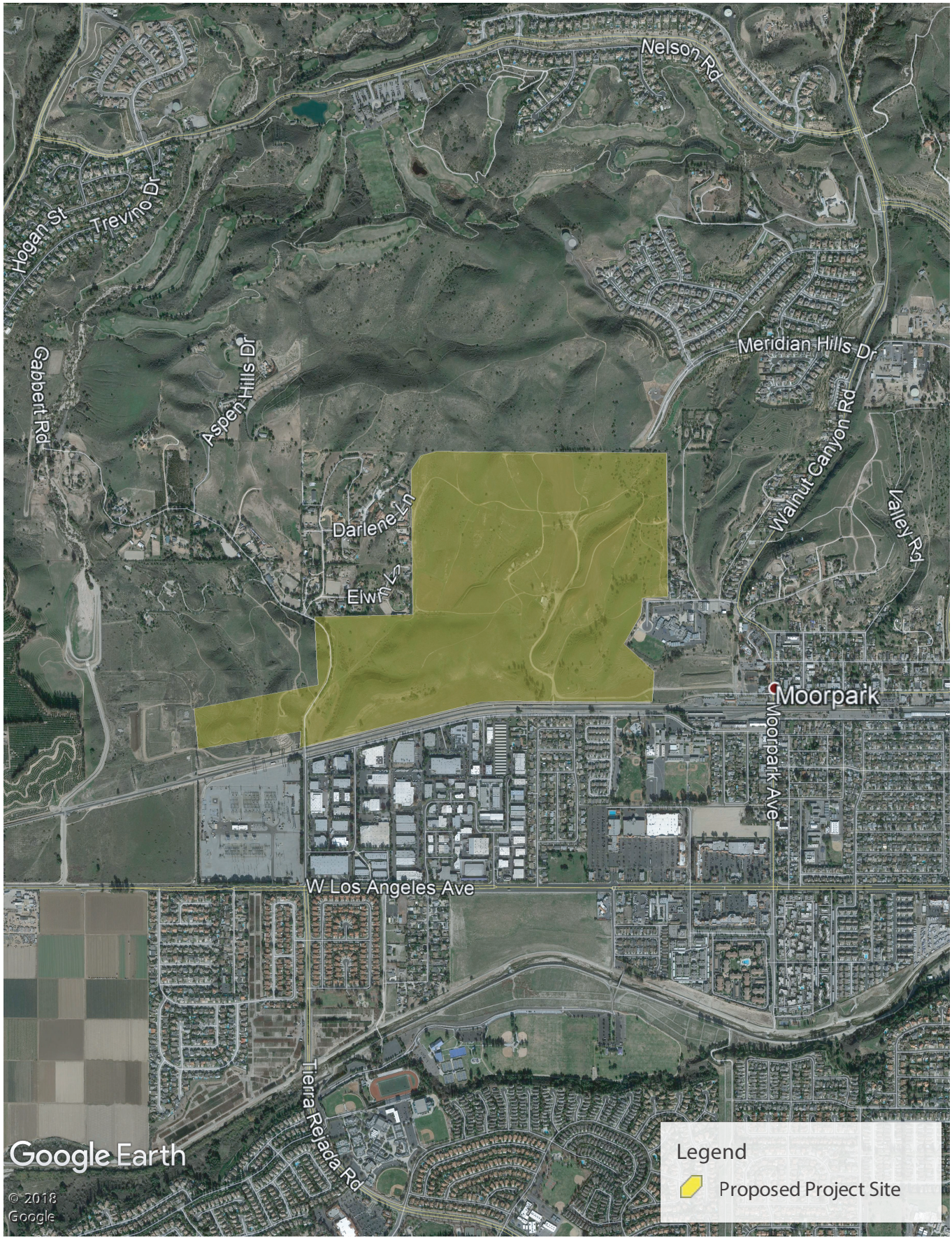
Meridian Hills Drive is a two-lane road that starts at Walnut Canyon Road to the east and terminates 0.6 miles to the west but is closed to public access west of Breezy Glen Drive.

Poindexter Avenue is a two-lane road designated as an east-west local collector road in the City's General Plan. Poindexter Avenue connects Moorpark Avenue on the east with Gabbert Road on the west.

Spring Road is a four-lane arterial road north of Los Angeles Avenue, and narrows to a two-lane collector road south of Los Angeles Avenue. Spring Road connects Walnut Canyon Road/SR-23 to the north with Tierra Rejada Road to the south.

Grimes Canyon Road is designated as a primarily north-south local collector road in the City's General Plan. Grimes Canyon Road connects Broadway Road to the north with Los Angeles Avenue to the south.

Tierra Rejada Road is designated as a four-lane arterial road primarily running east to west. Tierra Rejada Road connects Los Angeles Avenue to the northwest with the SR-23 to the east. Tierra Rejada Road continues outside of the project vicinity to connect to Madera Road in Simi Valley to the east.



SOURCE: Google, 2019. Impact Sciences, 2019

FIGURE **3.15-1**

Project Location

IMPACT SCIENCES

1318.002

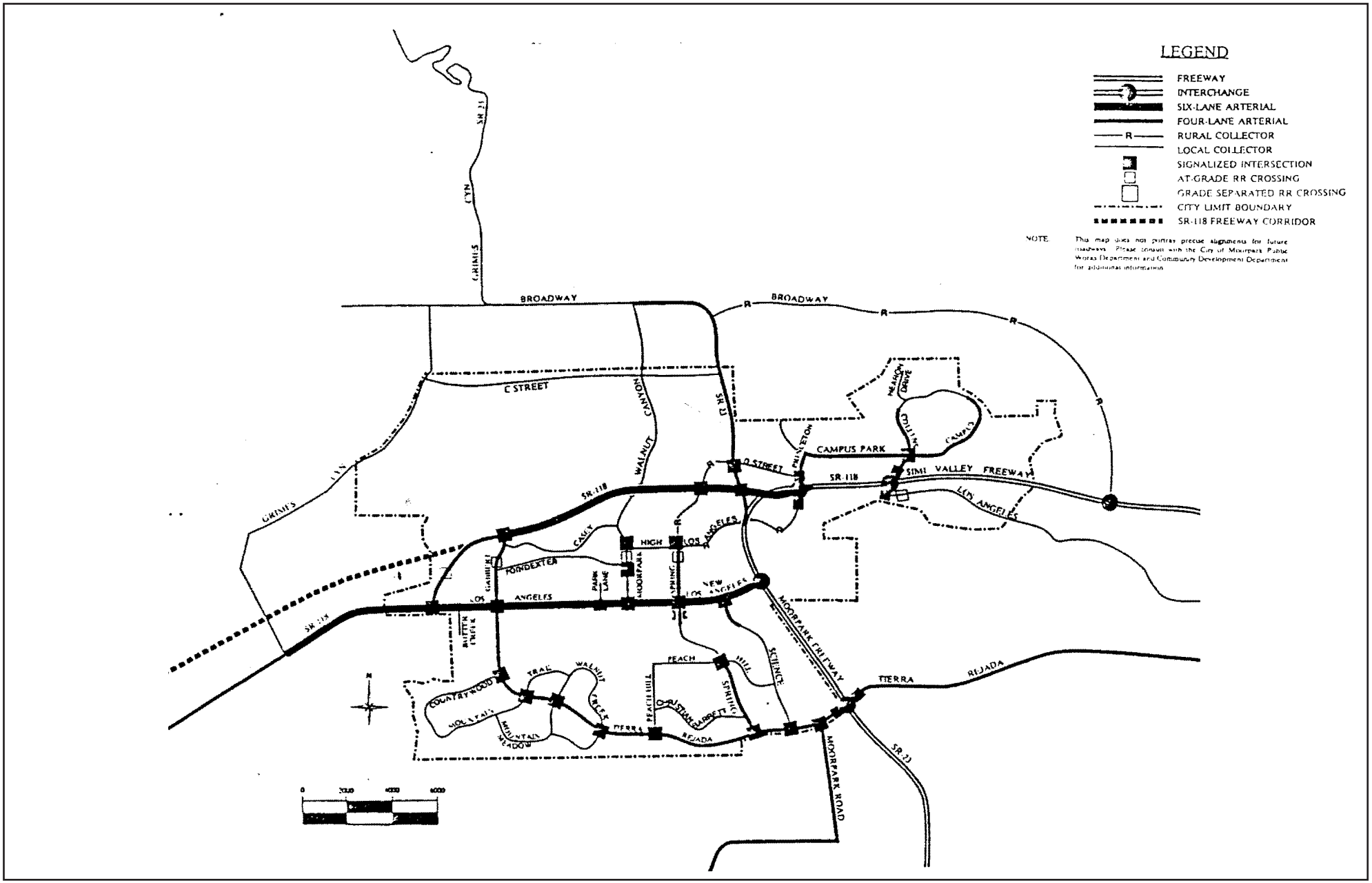
SOURCE: Comstock Homes, 2022.

FIGURE **3.15-2**

IMPACT SCIENCES

Proposed Project Site Plan

1318.004•01/2022



SOURCE: City of Moorpark, May 1992

FIGURE **3.15-3**

IMPACT SCIENCES

City of Moorpark General Plan Circulation Element - Highway Network

Transit Service

Public transportation in the study area is provided by Metrolink, Amtrak, and Moorpark City Transit. These services include:

- Metrolink: The Metrolink Ventura County Line provides trips to Ventura to the west and Los Angeles Union Station to the southeast.
- Amtrak: The Pacific Surfliner route provides access to San Luis Obispo to the north and San Diego to the south, including stops in Santa Barbara, Ventura, Burbank, Glendale, Los Angeles, Anaheim, and Irvine in between.
- Moorpark City Transit: Routes 1 and 2 follow the same route, but in opposite directions. Routes 1 and 2 connect with Moorpark College to the northeast, Moorpark City Hall in the northwest, Moorpark High School in the southwest, and Mesa Verde School in the south, amongst other destinations. The nearest Moorpark City Transit bus stop to the Project site is located at Moorpark City Hall. Buses run Monday through Friday, from roughly 6:15 AM to 6:00 PM.

Baseline Vehicle Miles Traveled (VMT)

The City of Moorpark has not adopted a local VMT threshold but anticipates establishing a threshold as part of a comprehensive General Plan update and Program EIR currently underway. The Ventura County Transportation Commission (VCTC) has drafted, although not yet adopted, guidance in accordance with the Governor's Office of Planning and Research (OPR) that suggests the minimum reduction standard threshold for residential, office and industrial projects be 15% below the existing per capita VMT.[2] The project's operational year would begin in 2027. Based on SCAG's 2020 Connect SoCal Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS, Connect SoCal) Growth Forecast projections and California Air Resources Board's EMFAC model, the 2027 baseline VMT per capita for Ventura County would be 18.6 miles. This will be used as the baseline per capita VMT to determine if the project would be below the 15% threshold.

Bicycle and Pedestrian Facilities

(*Refer to* ***Figure 3.15-4*** *City of Moorpark General Plan Circulation Element – Bikeway Element, May 1992*)

2 Ventura County Public Works. 2021. Available at: https://s29422.pcdn.co/wp-content/uploads/2020/06/VMT-Draft-for-Public-Review-Clean-Version.pdf

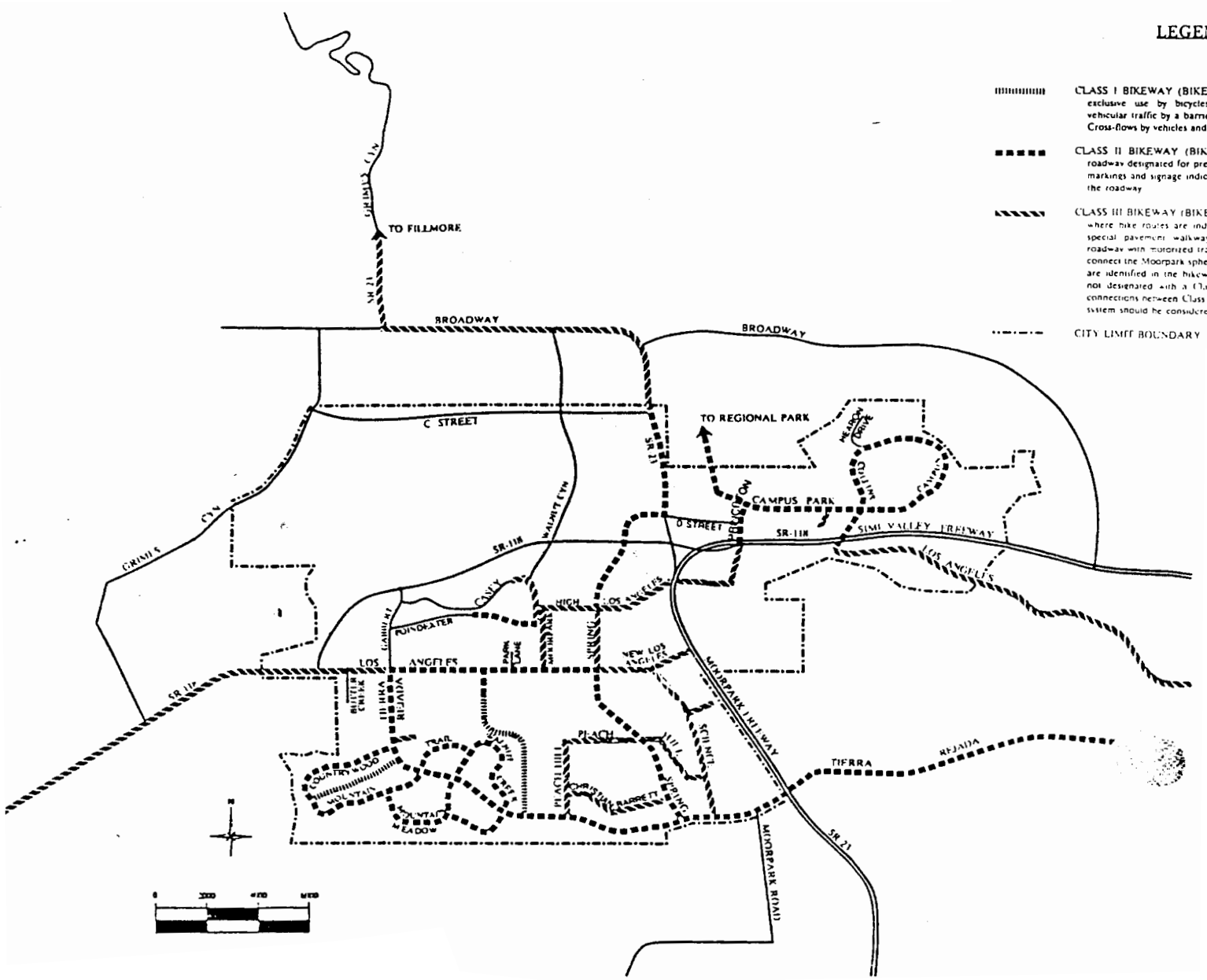
Class II bicycle facilities are located throughout the City of Moorpark, including westbound and eastbound lanes on Poindexter Avenue to the south of the Project site. Poindexter Park, located south across Poindexter Avenue, includes a skatepark, walking paths, and covered seating areas. Other nearby recreational facilities include Arroyo Vista Community Park and Magnolia Park.

3.15.2 REGULATORY FRAMEWORK

3.15.2.1 Federal Regulations

Federal Clean Air Act (CAA) Transportation Conformity

Congress passed the first major CAA (42 U.S. Code [USC] 7506(c)) in the 1970s which give EPA primary responsibility to regulate mobile and stationary sources of emissions and direct states to develop State Implementation Plans (SIPs) and required conformity determinations for areas designated nonattainment against the National Ambient Air Quality Standards (NAAQS), which included Ventura County. Conformity analysis and determination can be done at a regional level. SCAG provides a regional transportation conformity analysis in the Plan to address all nonattainment areas within the six-county region. The regional conformity determination is updated every four years with the RTP and associated FTIP, and is done as a part of the project-level conformity process for regionally significant projects as they occur. A hot spot analysis is provided to confirm that the project will not cause or worsen a localized violation of the standard for carbon monoxide (CO) or particulate matter (PM10 and/or PM2.5) in the existing nonattainment area. For more information, refer to **Section 3.2 Air Quality**.



SOURCE: City of Moorpark, May 1992

FIGURE **3.15-4**

IMPACT SCIENCES

City of Moorpark General Plan Circulation Element - Bikeway Element

Metropolitan Transportation Planning

The provisions of Title 23 USC Section 134 et seq. provides direct authority for Metropolitan Planning Organizations (MPOs) such as SCAG to act as a regional transportation planning organization with direct responsibility for carrying out the Regional Transportation Plan (RTP). SCAG is tasked with carrying out the transportation planning process and adopting long-range transportation plans. Collaborating with state and public transportation operators, SCAG undertakes a performance-driven, outcome-based approach to planning for the six county regions. SCAG must prepare a transportation plan to be updated every four years, including identification of transportation facilities and factors for each mode of non-motorized transport to major roadways, transit, multimodal and intermodal facilities, and connectors that should function as an integrated system serving regional transportation functions. The scope of transportation planning process is to provide consideration of projects and strategies that will achieve the following objectives (23 U.S.C. Section 134(g)(3)(A)):

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;
- Increase the safety of the transportation system for motorized and non-motorized users;
- Increase the security of the transportation system for motorized and non-motorized users;
- Increase the accessibility and mobility of people and for freight;
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns; Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- Promote efficient system management and operation;
- Emphasize the preservation of the existing transportation system;
- Improve the resiliency of and reliability of the transportation system, and reduce stormwater impacts of surface transportation; and,
- Enhance travel and tourism.

Fixing America's Surface Transportation Act (FAST)

The Fixing America's Surface Transportation (FAST) Act (Pub. L. No. 114-94), enacted in 2015, builds on the changes to federal transportation planning law made by MAP-21.[3] It was the first long-term surface

[3] The Moving Ahead for Progress in the 21st Century Act (MAP-21) was enacted in 2012 (PL 112-141).

transportation authorization enacted in a decade that provides long-term funding certainty for surface transportation.[4] The FAST Act authorizes $305 billion over fiscal years 2016 through 2020 for highway improvements, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs. The FAST Act maintains the focus on safety, keeps intact the established structure of the various highway-related programs, continues efforts to streamline project delivery, and provides a dedicated source of federal dollars for freight projects.

Under the FAST Act and its predecessors, MPOs such as SCAG must prepare long-range transportation plans and update them every four years if they are in areas designated as "nonattainment" or "maintenance" for federal air quality standards. Per federal requirements, long-range transportation plans must:

- be developed through an open and inclusive process, that ensures public input; seeks out and considers the needs of those traditionally underserved by existing transportation systems;
- consults with resource agencies to ensure potential problems are discovered early in the planning process;
- be developed for a period of not less than 20 years into the future; long-range transportation plans must reflect the most recent assumptions for population, travel, land use, congestion, employment and economic activity;
- have a financially-constrained element, transportation revenue assumptions must be reasonable, and the long range financial estimate must take into account construction-related inflation costs;
- include a description of the performance measures and performance targets used in assessing the performance of the transportation system;
- include a system performance report evaluating the condition and performance of the system with respect to performance targets adopted by the state that detail progress over time;
- include multiple scenarios for consideration and evaluation relative to the state performance targets as well as locally-developed measures;

4 Federal Highway Administration. *Fixing America's Surface Transportation Act*. Available at: https://www.fhwa.dot.gov/fastact/, accessed December 18, 2018.

- conform to the applicable federal air quality plan, called the State Implementation Plan, for ozone and other pollutants for which an area is not in attainment; and,

- consider planning factors and strategies in the local context.

3.15.2.2 State

Senate Bill 743

Senate Bill 743 (SB 743) was enacted in 2013 and became effective in July 2014. It requires OPR and the Natural Resources Agency to amend the *CEQA Guidelines* to establish new criteria for determining the significance of transportation impacts and define alternative metrics for traffic level of service (LOS). This started a process that has changed the requirements for transportation impact analyses under CEQA. These changes include elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as a basis for determining significant transportation impacts resulting from land use projects and plans in California (Pub. Res. Code § 21099(b).). The criteria are to promote GHG reduction, multi-model transportation networks, and a diversity of land uses.

In November 2018, the Natural Resources Agency issued a Final Statement of Reasons explaining the Agency's reasons for adopting these updates, as well as the policy, legal and factual bases for the changes.[5] The changes have been approved by the Office of Administrative Law and were filed with the Secretary of State, becoming effective on December 28, 2018.[6] The Guidelines establish VMT (vehicle miles traveled) as the preferred transportation impact metric and became effective on July 1, 2020. As such, automobile delay as measured by LOS or similar metrics are no longer to be considered a significant environmental impact as it pertains to circulation/transportation.

California Department of Transportation

The California Department of Transportation (Caltrans) is responsible for operating and maintaining the State highway system. According to the *Guide for the Preparation of Traffic Impact Studies,*[7] the existing LOS should be maintained if a freeway facility is currently operating at an unacceptable LOS (e.g., LOS F). A project impact is said to occur if the project degrades LOS from an acceptable to unacceptable level. A project impact may also occur when the addition of project trips exacerbates existing LOS F conditions

5 California Natural Resources Agency. *Final Statement of Reasons for Regulatory Action*. Available online at: http://resources.ca.gov/ceqa/docs/2018_CEQA_Final_Statement_of%20Reasons_111218.pdf, accessed May 20, 2019.

6 Governor's Office of Planning and Research (OPR). 2019.*Current CEQA Guidelines Update*. Available online at: http://opr.ca.gov/ceqa/updates/guidelines/, accessed May 20, 2019.

7 Caltrans. 2002. *Guide for the Preparation of Traffic Impact Studies*. December.

and leads to a perceptible increase in density on freeway mainline segments or ramp junctions, or a perceptible increase in service volumes in a weaving area. In addition, a project impact is said to occur when the addition of project trips causes a queue on the off-ramp approach to a ramp terminal intersection to extend beyond its storage area and onto the freeway mainline.

Caltrans prepares a Transportation Concept Report (TCR), which is a long-range (20-year) planning document, for each state highway. The purpose of each TCR is to identify existing route conditions and future needs and includes a concept LOS standard.

Complete Streets Directive

California Department of Transportation (Caltrans) enacted Complete Streets: Integrating the Transportation System (Complete Streets Directive) in October 2008, which required cities to plan for a "balanced, multimodal transportation network that meets the needs of all users of streets."[8] A complete street is a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility. Every complete street looks different, according to its context, community preferences, the types of road users, and their needs.

Assembly Bill 32 (AB 32) and Senate Bill 375 (SB 375)

With the passage of AB 32, the Global Warming Solutions Act of 2006, the State of California committed itself to reducing statewide greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Air Resources Board (California ARB) is coordinating the response to comply with AB 32.

On December 11, 2008, California ARB adopted its Proposed Scoping Plan for AB 32. This scoping plan included the approval of SB 375 as the means for achieving regional transportation-related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the state comply with AB 32.

There are five major components to SB 375. First, regional GHG emissions targets: California ARB's Regional Targets Advisory Committee guides the adoption of targets to be met by 2020 and 2035 for each Metropolitan Planning Organization (MPO) in the state. These targets, which MPOs may propose themselves, are updated every eight years in conjunction with the revision schedule of housing and transportation elements.

8 Caltrans, *Implementation Policy of Complete Streets: Integrating the Transportation System,* website: http://www.dot.ca.gov/hq/tpp/offices/ocp/complete_streets.html, accessed on September 9, 2014.

Second, MPOs are required to prepare a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the Regional Transportation Plan (RTP) must be consistent with each other, including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details an alternative plan to meet the target.

Third, SB 375 requires that regional housing elements and transportation plans be synchronized on 8-year schedules. In addition, Regional Housing Needs Assessment (RHNA) allocation numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within three years.

Fourth, SB 375 provides CEQA streamlining incentives for preferred development types. Certain residential or mixed-use projects qualify if they conform to the SCS. Transit-oriented developments (TODs) also qualify if they (1) are at least 50% residential, (2) meet density requirements, and (3) are within 0.5 mile of a transit stop. The degree of CEQA streamlining is based on the degree of compliance with these development preferences.

Finally, MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC). Regional Transportation Planning Agencies, cities, and counties are encouraged, but not required, to use travel demand models consistent with the CTC guidelines.

California Vehicle Code (CVC)

The CVC provides requirements for ensuring emergency vehicle access regardless of traffic conditions. Sections 21806(a)(1), 21806(a)(2), and 21806(c) define how motorists and pedestrians are required to yield the right-of-way to emergency vehicles.

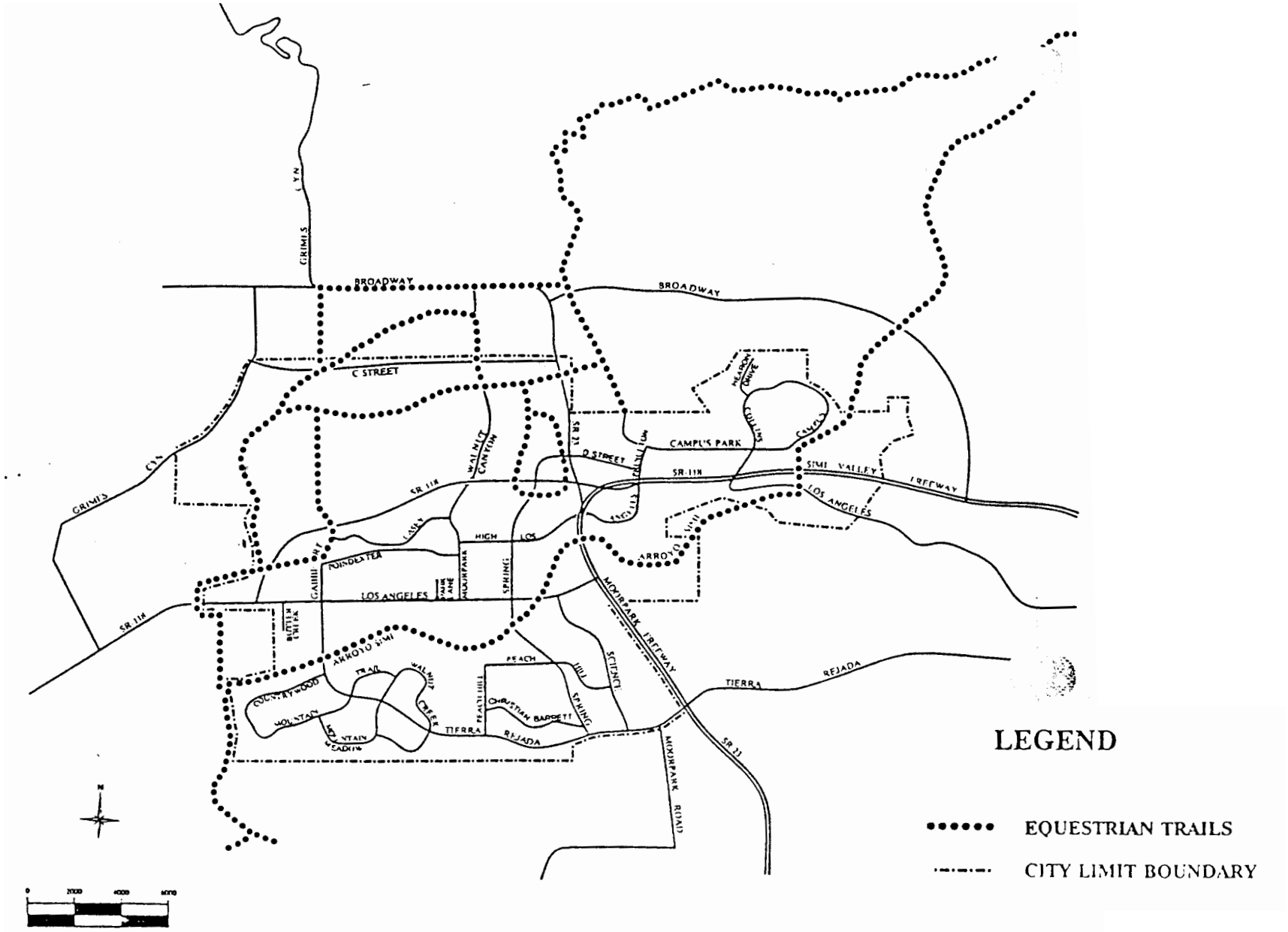
3.15.2.3 Local

City of Moorpark General Plan Circulation Element

The City of Moorpark Circulation Element was adopted in 1992. The Highway Network Plan (**Figure 3.15-3, City of Moorpark Circulation Element – Highway Network**) in the Circulation Element was based on roadways needed to accommodate the anticipated growth envisioned in the General Plan Land Use Element while achieving the identified goals for level of service.

The Circulation Element also includes a discussion of a Bikeway Plan and an Equestrian Trail Network, as shown on **Figure 3.15-4, City of Moorpark Circulation Element – Bikeway Element**, and **Figure 3.15-5, City of Moorpark Circulation Element - Equestrian Trail Network**.

The goals and policies for the Circulation Element are listed below in section **3.15.4, Project Impacts**, along with analysis to demonstrate the Proposed Project's consistency with the City's General Plan Circulation Element goals and policies. Those goals and policies which are not applicable to the Proposed Project have not been listed or analyzed.



SOURCE: City of Moorpark, May 1992

FIGURE **3.15-5**

IMPACT SCIENCES

City of Moorpark General Plan Circulation Element - Equestrian Trail Network

1318.004•12/2021

3.15.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the impact of the Proposed Project related to transportation would be considered significant if it would:

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

City of Moorpark Threshold Criteria

The City of Moorpark has not currently adopted a local VMT significance threshold. However, the Ventura County Transportation Commission (VCTC) released draft VMT thresholds that align with OPR's SB 743 Guidance and CEQA Guidelines. Using VMT as a performance metric instead of LOS is intended to discourage suburban sprawl, reduce greenhouse gas emissions, and encourage the development of smart growth, complete streets, and multimodal transportation networks. As such, VCTC is proposing to adopt OPR guidance that suggests the minimum reduction standard threshold for residential, office and industrial projects be 15% below the existing per capita VMT.[9]

Based off SCAG's 2020 Connect SoCal Growth Forecast and California Air Resources Board's EMFAC model, the 2027 baseline VMT per capita for Ventura County would be 18.6 miles. A 15% reduction gives a threshold of 15.81 per capita VMT.

9 Ventura County Public Works. 2021. Available at: https://s29422.pcdn.co/wp-content/uploads/2020/06/VMT-Draft-for-Public-Review-Clean-Version.pdf

3.15.4 PROJECT IMPACTS

Impact TRA-1 **Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.**

Less Than Significant

Analysis of the project's potential to conflict with a program, plan, ordinance, or policy addressing the circulation system are discussed in **Section 3.10, Land Use and Planning**.

The Circulation Element of the Moorpark General Plan sets the overall Goals and identifies the circulation improvements necessary to provide adequate transportation throughout the City. The Circulation Element includes seven goals and 49 policies to assist in achieving these goals. Goals and polices relevant to the Proposed Project are listed below:

General

Goal 1: Provide a transportation system that supports the land use plan in the General Plan and provides for the safe and efficient movement of people, goods and services within, into, out of, and through the City of Moorpark.

Policy 1.1: The completion of the ultimate circulation system, through the improvement of sub-standard roadway segments and intersections and the construction of missing roadway links and related facilities shall be actively promoted.

Policy 1.4: New residential streets should be designed so as to discourage pass-through trips which do not begin nor end within the residential area served by the street.

Policy 1.7: Roadways, pedestrian areas, walks, street name signs and utilities in applicable outlying areas shall be designed to convey a rural appearance while providing for low maintenance costs and safe passage of vehicles, pedestrians, equestrians, and bicycles.

Goal 1 Implementation

Consistent. The Specific Plan provides for a hierarchical system of streets that implements significant components of the Circulation Element and connects with other streets and roadways to link throughout

the City and the greater area. This includes the extension of Meridian Hills Drive, North Hills Parkway, Casey Road, High Street and "A" Street. The street network provided by the Specific Plan greatly improves the fire safety and emergency access to the Meridian Hills and Gabbert Road neighborhoods as well as eliminates the sub-standard single point of access at the existing Walnut Canyon School campus.

Level of Service

Goal 2: Provide a circulation system which supports existing, approved and planned land uses throughout the City while maintaining a desired level of service on all streets and at all intersections.

Policy 2.1: Level of service 'C' shall be the system performance objective for traffic volumes on the circulation system. For roadways and interchanges already operating at less than level of service 'C', the system performance objective shall be to maintain or improve the current level of service.

Policy 2.2: Project phasing shall be coordinated with construction of on-site and off-site circulation improvements to maintain the performance standards objectives specified in Policy 2.1 and to ensure that improvements are in place when needed.

Policy 2.3: New development projects shall mitigate off-site traffic impacts to the maximum extent feasible.

Policy 2.4: All new development shall participate in a transportation improvement fee program. This fee enables circulation improvements to be funded by new development in a manner that maintains the performance objectives specified in Policy 2.1.

Policy 2.5: Driveway access points onto arterial roadways shall be limited in number and location in order to ensure the smooth and safe flow of vehicles and bicycles.

Policy 2.6: Secondary access should be required for projects located in the middle of a block adjacent to a limited-access arterial.

Policy 2.7: Traffic signal or stop sign installation shall be required at intersections which, based on individual study, are shown to satisfy traffic or stop sign warrants.

Policy 2.10: On-street parking on any new arterial streets shall be prohibited. For existing arterial streets with parking allowed, special studies should be carried out to ensure off-street parking adequacy prior to prohibiting on -street parking.

Policy 2.11: Adequate off-street parking shall be provided in all new or expanded projects as part of construction.

Goal 2 Plan Implementation

Consistent. The Project circulation system integrates with and extends existing streets such as Casey Road and High Street and accommodates planned future uses through the extension of North Hills Parkway.

Policy 2.1 establishes Level of Service (LOS) 'C' as the circulation system performance objective Citywide. Without the roadway improvements planned as part of the Proposed Project, the Project would be inconsistent with Goal 2, Policy 2.1, i.e., maintaining LOS 'C' for traffic volumes on the circulation system.

A Traffic Impact Assessment (TIA) and a Supplemental Traffic Analysis (STA)[10] were prepared in order to: 1) assess the change in traffic flow produced by the Proposed Project and cumulative traffic identified by the City for future projects; and 2) to determine if, when compared to existing conditions, the implementation of the Proposed Project and cumulative traffic impacts would cause any of the studied intersections to function below the City's LOS C performance objective as outlined in Policy 2.1. The TIA assessed 35 intersections, with the STA adding an additional two intersections:

TIA Intersections

1. Walnut Canyon Rd & Broadway Rd
2. Walnut Canyon Rd & Championship Dr
3. Walnut Canyon Rd & Spring Rd
4. Walnut Canyon Rd & Casey Rd
5. Moorpark Ave & High St
6. Spring Rd & High St
7. Gabbert Rd & Poindexter Ave
19. Mountain Trail Rd & Tierra Rejada Rd
20. Mountain Meadow Dr & Tierra Rejada Rd
21. Walnut Creek Rd & Tierra Rejada Rd
22. Peach Hill Rd & Tierra Rejada Rd
23. Spring Rd & Tierra Rejada Rd
24. Moorpark Rd & Tierra Rejada Rd
25. SR-23 SB ramps & Tierra Rejada Rd

10 Both of these studies are included in Appendix 3.15 to this EIR.

8. Moorpark Ave & Poindexter Ave/1st St
9. Somis Rd & Los Angeles Ave
10. Grimes Canyon Rd & Los Angeles Ave
11. Tierra Rejada Rd & Los Angeles Ave
12. Moorpark Ave & Los Angeles Ave
13. Spring Rd & Los Angeles Ave
14. Miller Pkwy/Science Dr/Los Angeles Ave
15. SR-23 SB ramps & Los Angeles Ave
16. SR-23 NB ramps & Los Angeles Ave
17. Spring Rd & Peach Hill Rd
18. Tierra Rejada Rd & Countrywood Dr
26. SB-23 NB ramps & Tierra Rejada Rd
27. Moorpark Rd & Santa Rosa Rd
28. Broadway Rd & Grimes Canyon Rd
29. Championship Dr & Grimes Canyon Rd
30. Meridian Hills Dr & Walnut Canyon Rd
31. SR 118 WB & Collins Dr
32. SR 118 EB & Collins Dr
33. "A" Streetat Meridian Hills Dr (*Future*)
34. "A" Streetat High St (*Future*)
35. "A" Streetat Casey Rd (*Future*)

STA Intersections

1. Gabbert Rd & North Hills Pkwy (Future)
2. Gabbert Rd & High St (Future)

When analyzed against existing conditions (refer to **Appendix 3.10, General Plan – Circulation Element Consistency Analysis**), the change in traffic flow generated by the Proposed Project would cause three intersections to function below the City's LOS C performance (Walnut Canyon Rd & Spring St [PM peak hour], Walnut Canyon Rd & Casey Rd [AM peak hour], and Spring St & High St [PM peak hour]). When analyzed against Future with Project (Cumulative) conditions, six intersections (Walnut Canyon Rd & Casey Rd [AM and PM peak hour], Moorpark Ave & High St [AM and PM peak hour], Spring St & High St [AM and PM peak hour], Moorpark Ave & Poindexter Ave [AM and PM peak hour], Miller Pkwy & Los Angeles Ave [AM and PM peak hour], and SR 23 SB Ramps & Los Angeles[AM and PM peak hour]), would function below the LOS C performance objective.

As a result, a **Condition of Approval** will be required to ensure that traffic conditions in the Project area would remain consistent with the Goals and Policies identified in the **City of Moorpark General Plan – Circulation Element**. This **Condition of Approval** will require that the Project Applicant shall pay an **Area of Contribution** (**AOC**) fee based upon the City's currently adopted **AOC** fee schedule (as indicated in the Development Agreement for the Project). The **AOC** fee for each individual dwelling unit shall be paid prior to issuance of a certificate of occupancy for that unit. With the payment of the **AOC** fees, which are intended to be used by the City to fund roadway improvements as identified in the City's Capital Improvement Program (CIP) list, the Project would be consistent with the Goals and Policies identified in the City of Moorpark General Plan – Circulation Element[11].

11 The City would update the current Capital Improvement Program (CIP) list to include and address the specific improvements identified in the TIA and STA for implementation of the Proposed Project.

Roadway Standards

Goal 3: Adopt and maintain a set of roadway standards and transportation system design criteria which supports and maintains the desired character of the City of Moorpark.

Policy 3.2: Planting and substantial landscaping shall occur along major arterials to mitigate visual impacts and erosion problems.

Policy 3.3: Roadways in hillside areas shall not have a significant, adverse impact on the natural contours of the land; grading for streets shall be minimized; and harsh cut slopes which may not heal into natural appearing surfaces shall be avoided.

Policy 3.4: New collector streets in hillside areas shall be required to have curb and gutter and graded shoulders, and on-street parking shall be prohibited, as necessary, in order to provide extra safety.

Policy 3.5: Private streets shall be required to be improved to public street standards prior to dedication to the City.

Policy 3.6: The use of landscaped medians on arterial streets shall be encouraged in an effort to preserve the image of the community.

Policy 3.7: Rural and hillside road standards shall be developed, including standards for landscaping, levels of service, and road widths.

Goal 3 Plan Implementation

Consistent. The proposed circulation plan for the Project is designed to implement the General Plan Circulation element and to comply with the City of Moorpark's standards and design criteria. Components of the access plan are illustrated on **Figure 2.0-3**. All "named" streets on **Figure 2.0-3** (including "A" Street) would be public and all other streets would be private. The primary access to the Plan area would be provided via extensions of Casey Road and High Street to the west and a connection to North Hills Parkway, a planned arterial. The proposed Plan incorporates several roadway improvements in addition to roadways internal to each Planning Area. These roadways include (1) dedication of right-of-way and construction for North Hills Parkway; (2) dedication of the Casey Road right-of-way and roadway construction; (3) dedication of the "A" Street right-of-way and roadway construction, (4) dedication of the on-site High Street right-of-way and on-site and off-site roadway construction, (5) dedication of Meridian Hills Drive right-of-way and roadway construction; and (6)

dedication of the Gabbert Road right-of-way and roadway construction. It should be noted that there will be no changes required to the Gabbert Road railroad crossing as the TIA analysis demonstrates that the build-out of the proposed project along with future traffic increases in traffic volumes do not warrant any improvements at this crossing. Refer to **Figure 3.15-6 Gabbert Roadway Alignment with Railroad Crossing**.

Transit System

Goal 4: Provide a public transportation system which serves the needs of persons living in and/or working in the City of Moorpark.

Policy 4.2: Proposed developments shall include transit facilities, such as bus benches, shelters, pads or turn-outs, where appropriate, in their improvement plans, or as needed in proximity to their development.

Goal 4 Plan Implementation

Consistent. The Specific Plan will be reviewed by the local transit authorities to evaluate transit needs. The Specific Plan will incorporate bus stops at appropriate locations to facilitate transit service between the planning area, the City and the region at the directions of the transit authority. Bicycle and Pedestrian Facilities.

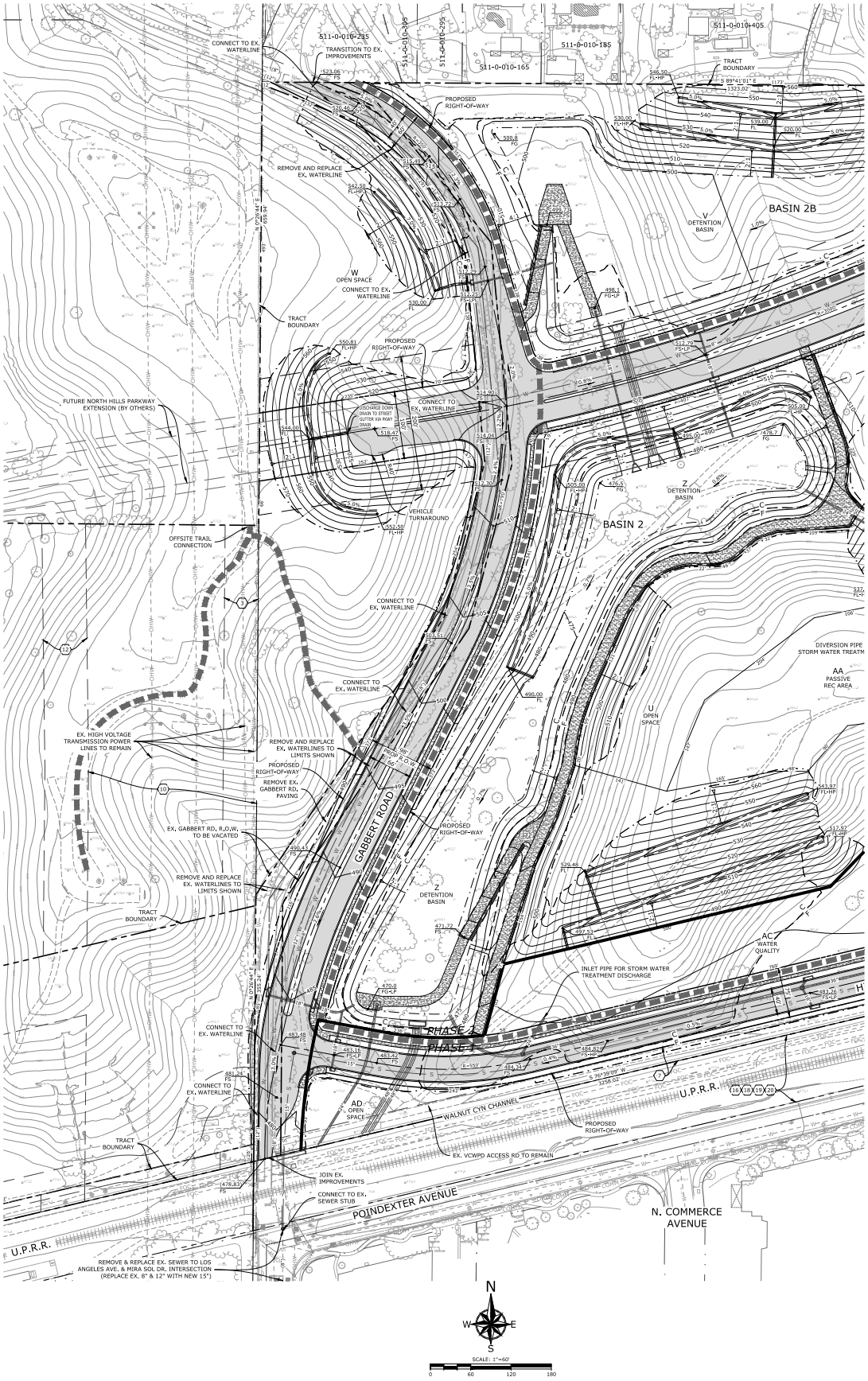
(Refer to **Figure 3.15-4 City of Moorpark Circulation Element – Bikeway Element**)

Goal 5: Provide a citywide system of safe, efficient, and attractive bicycle and pedestrian routes for commuter, school, and recreational uses.

Policy 5.1: New development and redevelopment projects shall be required to include safe, separate, and convenient paths for bicycles and pedestrians so as to encourage these alternate forms of non-polluting transportation.

Policy 5.2: Plans for bicycle and pedestrian facilities shall give priority to providing continuity and closing gaps in the bikeway and sidewalk network.

Policy 5.3: Proposed residential, commercial, and industrial developments shall be required to include bikeways in their street improvement plans, consistent with the Circulation Element Bikeway Network Plan, and to construct the bicycle paths, or lanes, or routes as a condition of project approval.



SOURCE: Encompass Consultant Group, 2021.

FIGURE **3.15-6**

IMPACT SCIENCES

Gabbert Roadway Alignment with Railroad Crossing

Policy 5.4: Development projects shall be required to participate in the funding of planned bikeways which would allow employees to utilize bicycles as an alternative to automobiles.

Policy 5.5: The provision and maintenance of off-street bicycle paths shall be encouraged.

Policy 5.6: Bicycle racks shall be required, and storage facilities shall be encouraging at new or modified public, commercial, and industrial building sites.

Policy 5.7: The installation of sidewalks shall be required for all new roadway construction and significant reconstruction of existing roadways, with the exception of hillside areas. If installation of sidewalks in hillside areas would result in significant grading impacts or a safety concern, special consideration shall be given to either eliminating the need for sidewalks or requiring along one side of the street only.

Policy 5.8: Along arterial and collector roadways, requiring the use of meandering sidewalks or the provision of landscaping between the curb and sidewalk shall be given consideration for all new projects proposed in commercial and industrial areas.

Policy 5.9: The design of unobstructed sidewalks, when included as part of roadway improvement plans, shall follow accepted traffic engineering practice.

Policy 5.10: The installation of appropriately located handicapped ramp curb-cuts shall be required for all new roadway construction and significant reconstruction of existing roadways.

Goal 5 Plan Implementation

Consistent. The design of the Specific Plan includes ADA compliant sidewalks, and dedicated bicycle lanes within appropriate roadway designs and provides an integrated trail system with improved trail heads to facilitate pedestrian and bicycle uses. Major roadways through the development will be landscaped with native and adaptive plant materials and maintained by the HOA. Specifically, North Hills Parkway would be developed as a four-lane road, consisting of two vehicle-travel lanes plus bike lanes (in each direction) with a total right-of-way corridor dedication width of 200 feet with controlled

access and restricted parking. A 14-foot wide landscaped median would be provided. The roadway also includes a 14-foot wide parkway section. The north side of the parkway would provide for a 12-foot wide multi-use trail. Bike racks will be installed at all active park and recreation areas.

Equestrian Facilities

(Refer to **Figure 3.15-5 City of Moorpark Circulation Element – Equestrian Trail Network**)

Goal 6: Provide equestrian trails for recreational use.

Policy 6.1: New development projects shall provide equestrian trail linkages to regional parks and to regional trail systems consistent with the Circulation Element Equestrian Trail Network Plan.

Policy 6.2: New residential developments shall be encouraged to provide equestrian paths.

Policy 6.3: Multi-use equestrian, bicycle, and pedestrian trails shall be encouraged wherever feasible.

Goal 6 Plan Implementation

Consistent. The Specific Plan provides for an interconnected system of public multi-use trails throughout the Project area open spaces with links to existing adjacent equestrian uses and local and regional trails.

Transportation Demand Management

Goal 7 Develop and encourage a transportation demand management system to assist in mitigating traffic impacts and in maintaining a desired level of service on the circulation system.

Policy 7.1: To reduce energy consumption, noise pollution and air pollution, employment generating developments shall provide incentives to employees to utilize alternatives to the conventional automobile, such as walking, bicycles, carpools, vanpools, buses, and commuter rail.

Policy 7.3: Alternate forms of public and private transit which give routing, scheduling and planning priority to the work force, youth,

handicapped, senior citizens and shoppers shall be provided to the extent feasible.

Goal 7 Plan Implementation:

Consistent. The Hitch Ranch Specific Plan includes bikeways and trails that will encourage the use of alternative transportation by connecting to the city's bike and trail system. Additionally, the project will provide multi-family housing in close proximity to transit (Moorpark Amtrak and Metrolink stations, and bus routes) and employment opportunities.

Consistency Analysis Conclusion

While the Proposed Project would result in a reduction in level of service at three intersections, this change in conditions would not be an environmental impact under CEQA. Public Resources Code section 21099(b)(2) and CEQA Guidelines Section 15064.3(a) specifically indicate that level of service is no longer an environmental impact under CEQA. Therefore, the Proposed Project is consistent with the goals and policies of the City of Moorpark General Plan Circulation Element and impacts regarding a conflict between the project and a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities would be less than significant.

For further discussion regarding the Hitch Ranch Specific Plan's consistency with the Goals and Policies of the City of Moorpark General Plan Circulation Element, please refer to **Section 3.10, Land Use**.

Impact TRA-2 Conflict or be inconsistent with *CEQA Guidelines* section 15064.3(b).

Less than Significant

For land use projects, the intent of this threshold is to assess whether a land use or plan causes substantial vehicle miles traveled. The Plan would have a significant impact if the Plan's VMT exceeds the threshold. OPR issued proposed updates to the CEQA guidelines in November 2017 and an accompanying technical advisory guidance finalized in December 2018 (*OPR Technical Advisory*) that amends the Appendix G question for transportation impacts to delete reference to vehicle delay and level of service and instead refer to Section 15064.3, subdivision (b)(1) of the CEQA Guidelines asking if the project will result in a substantial increase in vehicle miles traveled (VMT). The California Natural Resources Agency certified and adopted the CEQA Guidelines in December of 2018 and are now in effect. In the absence of any formal guidelines and data from the City of Moorpark, VCTC, or SCAG, this analysis summarizes an approach that is consistent with OPR Guidance for implementing SB 743.

Pursuant to the December 2018 *OPR Technical Advisory*, lead agencies have the discretion to choose the most appropriate methodology for evaluating project VMT. Based on OPR's recommendations, this analysis includes the following general assumptions applicable to a residential development:

- The VMT metric applies to light-duty vehicles and trucks. Given the nature of residential development, medium- and heavy-duty truck VMT was not evaluated.
- The VMT analysis examines the entirety of VMT associated with the project, not just travel within the City of Moorpark.
- While estimating VMT is best done through tour-based modeling using a regional travel demand model, this analysis uses publicly available information.

In the absence of formal guidance or policies from local agencies, the project is assumed to have a less than significant impact if daily VMT would be 15 percent or more lower than the average daily per capita VMT in Ventura County.[12,13] Based on data from SCAG and the California Air Resources Board, the average daily VMT per capita would be 18.6 in Ventura County in 2027, the projected operational date of the Proposed Project.[14] This calculation is based on VMT forecasts from the California Air Resources Board and population forecasts from SCAG's Connect SoCal adopted growth forecast (see attached worksheets for these calculations). Based on this, a 15 percent reduction would result in an average daily per capita VMT target of 15.8 in 2027.

The Proposed Project could generate about 46,342 daily VMT, based on average household density in the City of Moorpark and the average per capita VMT for Ventura County.[15] However, given the immediate proximity of the Moorpark Metrolink station, a shift in mode share from drive alone commutes to rail transit is appropriate. Assuming modest mode for Metrolink use from the future development, 102 daily vehicle trips from single-family homes and 266 daily vehicle trips from multi-family homes are shifted to Metrolink. The model assumes the Metrolink mode share of 2.5 percent for the single-family homes and 5.0 percent for the multifamily homes, based on their proximity to commuter rail service. This represents

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12 While OPR suggests that projects that generate or attract fewer than 110 trips per day could be screened out from further VMT-based analysis, the Proposed Project would exceed this daily threshold and not be exempt from further analysis.

13 OPR finds that certain projects within ½-mile of an existing major transit stop will have a less-than-significant impact on VMT. While the project is near the Moorpark Metrolink station, the residences are generally more than ½-mile from the station's platforms.

14 Assumes 3.67 persons per dwelling unit (SCAG's 2016 RTP growth forecast for City of Moorpark in 2027) and 18.8 per capita daily VMT.

15 Assumes 3.67 persons per dwelling unit (SCAG's 2016 RTP growth forecast for City of Moorpark in 2027) and 18.8 per capita daily VMT.

an incremental mode share beyond baseline 0.85 percent public transit mode share (US Census American Communities Survey 5- Year Estimate, 2017). It also assumes a weighted mode share of 0.5 percent for the single-family homes and 1.0 percent for the multi-family homes, which factors in the likely use of Metrolink trains for commuting purposes. The model assumes 33 percent of average daily travel is commute related and 4.3 average weekly days for Metrolink riders based on the statistics provided in the Metrolink 2018 Origin-Destination Study for Ventura County Stations.[16,]

This mode shift of future residents from auto to Metrolink reduces 12,757 average VMT per day from baseline daily VMT. Because each Metrolink trip reduces 34.2 miles of VMT, the per capita VMT would be approximately 13.6, a 27.1 percent reduction from the Countywide average.[17]

Until the City, VCTC, and/or SCAG develop formal protocols and policies for judging the VMT impacts of projects, this analysis and the use of a 15 percent reduction threshold is consistent with OPR guidance. As such, this analysis finds that transit mode share from Metrolink use would reduce 27.1 percent of VMT from the Proposed Project, resulting in a daily per capita rate of 13.6. Because this result is lower than the 15.8 per capita target that represents a 15 percent reduction from Countywide per capita targets, the Proposed Project would be considered less than significant for VMT impacts.

Impact TRA-3 **Substantially increase hazards due to geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

Impact TRA-4 **Result in inadequate emergency access.**

Less than Significant

The Project site's internal circulation system does not have any hazardous design features like sharp curves or complex intersections that could impede ingress and egress for emergency vehicles. Specifically, the primary collector roads (e.g., Casey Road, High Street, "A" Street, North Hills Parkway, Meridian Hills Drive) all would be designed to the City's standards for such roadways. A roundabout at the junction of Meridian Hills Drive and "A" Street would be designed with sufficient radius to allow emergency vehicles to navigate this. Local roads serving the residences would not include any sharp curves or other design features that would impede emergency access. Cul-de-sacs would be designed with sufficient turning radii for larger emergency vehicles. No roads would be permanently closed

16 Metrolink 2018 Origin-Destination Study for Ventura County Stations, https://metrolinktrains.com/globalassets/about/agency/facts-and-numbers/metrolink-2018-od-study.pdf, accessed November 15, 2021.

17 Assumes average trip length of Metrolink trips from Ventura County stations of 34.2 miles (Metrolink 2018 Origin-Destination study).

during the construction of the Proposed Project. Further, the Union Pacific railroad crossing at Gabbert Road between Poindexter Avenue and the newly extended High Street would remain in place both during construction and upon completion of the project. It should be noted that there will be no changes required to the Gabbert Road railroad crossing as the TIA analysis demonstrates that the build-out of the proposed project along with future traffic increases in traffic volumes do not warrant any improvements at this crossing (refer to **Figure 3.15-6, Gabbert Roadway Alignment and Railroad Crossing**). As such, no structures would be built that could impair execution of emergency response plans or emergency evacuation plans.

In the long-term, development of the Project site would replace dead-end cul-de-sacs at several locations (e.g., High Street, Casey Road, Meridian Hills Drive) with through access to the larger transportation network. The proposed circulation improvements to be implemented under the Hitch Ranch Specific Plan would provide additional access for potential movement of emergency equipment for locations north, east and west of the Project site, including the existing Gabbert Estates community at the north end of Gabbert Road. The proposed circulation improvements would provide alternative east/west access via the Casey Road, High Street, and "A" Street extensions, and ultimately via the four-lane arterial North Hills Parkway proposed through the central portion of the Project site once it has been constructed. This would improve emergency access throughout the vicinity by increasing the options for accessing emergency events.

No roads would be permanently closed during the construction of the Proposed Project. In addition, no structures would be built that could impair execution of emergency response plans or emergency evacuation plans.

3.15.5 CUMULATIVE IMPACTS

Transportation analyses should consider both short-term and long-term project effects on VMT. Short-term effects are evaluated in the detailed project-level VMT analysis summarized above. Long-term, or cumulative, effects are determined through a consistency check with SCAG's RTP/SCS. The RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and GHG reduction targets. As such, projects that are consistent with the RTP/SCS in terms of development, location, density, and intensity, are part of the regional solution for meeting air pollution and GHG reduction goals. Projects that are deemed to be consistent would have a less than significant cumulative impact on VMT. Development in a location where the RTP/SCS does not specify any development may indicate a significant impact on transportation. Based on the above Project-related VMT analysis which concludes that the Proposed Project falls under the impact thresholds and thus is already shown to align

with the long-term VMT and GHG reduction goals of SCAG's RTP/SCS, no cumulative VMT impacts are anticipated.

3.15.6 MITIGATION MEASURES

3.15.6.1 Project's Traffic Mitigation Measures under CEQA

No mitigation measures are required.

3.15.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project impacts under CEQA criteria would be less than significant.

3.16 TRIBAL CULTURAL RESOURCES

INTRODUCTION

This section evaluates the potential for the proposed Hitch Ranch Specific Plan to impact tribal cultural resources. It also discusses the potential impacts to tribal cultural resources as a result of construction and operation activities associated with the proposed specific plan.

Tribal cultural resources are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (California Register) or included in a local register of historical resources, or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant. A cultural landscape that meets these criteria is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. Historical resources, unique archaeological resources, or non-unique archaeological resources may also be tribal cultural resources if they meet these criteria.

3.16.1 EXISTING CONDITIONS

3.16.1.1 Ethnographic and Prehistoric Background

Hitch Ranch, lying in southeastern Ventura County, California, is situated in a zone known to have prehistorically comprised a portion of the Canaliño culture area, and historically to have been a part of the Chumash ethnolinguistic sphere. In general, archaeological terms, the region of the Canaliño culture area is known to have first been occupied during the Early Millingstone period, which dates back to approximately 9,000 years before present (B.P.). During this period, subsistence is posited to have emphasized plant resources, and site assemblages are dominated by large-sized and relatively crude chopping, grinding, and pounding tools. Around 3500 years B.P., the prehistoric inhabitants of the region are said to have made a transition to a more hunting-oriented economy, which occurred during the duration of the Intermediate period, lasting to about AD 1200. Artifacts particularly diagnostic of this period include large, stemmed projectile points, which were probably used as spear or dart points, although smaller arrow points were introduced after about AD 500. The Intermediate period was subsequently replaced by the Late Prehistoric, or Canaliño, period which lasted until the time of Spanish missionization during the last two decades of the 18th century. The Canaliño period witnessed a florescence of aboriginal culture, which included a substantial growth in population, the establishment of permanent settlements on the coast, a high degree of sociopolitical complexity, and the development of a very sophisticated maritime economy. It was during the Canaliño period that the ethnolinguistic group

now known as the Chumash achieved levels of cultural and social sophistication perhaps unrivalled by hunter-gatherer groups anywhere else in the world.

The term "Chumash" strictly applies to a group of people united only by the use of a series of closely related Hokan languages, sharing a number of similar cultural traits, and stretching from Topanga Canyon inland to Mt. Piños and along the coast to the San Luis Obispo area. That is, it implies no necessary sociopolitical unity (as in a single tribe) and a series of different Chumash languages and political units existed at the time of Spanish contact. In the southeasternmost region of the Chumash, including the immediate area of Moorpark, Ventureño Chumash was spoken.

Based on recent ethnohistoric reconstructions, the Chumash were united into at least two major chiefdoms at the time of contact with the Spanish, and these crossed linguistic boundaries between the various Chumashan-speaking groups. One of these political bodies, Lulapin, was governed from a village occupied by the paramount chief located near modern Point Mugu, at the mouth of Calleguas Creek. This village controlled a series of smaller villages and village provinces within a large region stretching to the north of Santa Barbara at the time of Spanish contact. One of these "controlled," or subordinate, provinces was Humaliwo, which was governed by the historic village located at modern Malibu Beach. Logically, whatever villages existed historically within the Moorpark/Simi Valley area would have been subordinate to the capital at Point Mugu as well.

While the specific region of the study area must be viewed within this general prehistoric and ethnohistoric context, it is nonetheless true that the reconstruction of Chumash prehistory and ethnohistory has largely been based on coastal evidence. That is, sites and minor regions inland from the coast obviously vary from those on the coastal strip (lacking, for example, access to coastal and maritime resources) and, therefore, exhibit not only some differences in terms of general site characteristics and adaptational trajectories, but in general chronological parameters too.

The region Hitch Ranch is located in is an inland area generally referred to as the Simi Corridor. This comprises part of a series of east-west trending valleys and intervening hill systems lying northward (and therefore inland) of the Santa Monica Mountains and Conejo Corridor. It includes the Simi Valley proper, the Tierra Rejada, Little Simi, and the Santa Rosa Valleys, all of which are tributary to the Calleguas Creek drainage. Although little archaeological research in the Simi Valley area and Simi Corridor has been published, it is probable that the prehistory of this area is similar to that of the adjacent Conejo Corridor, located immediately to the south. A relatively intensive period of research in this last area, resulting largely from development in the Thousand Oaks region and the cultural resources management studies that have been attendant to this development, has provided a thorough indication of the nature of the prehistoric record in this inland region, which appears to be applicable to the Simi Corridor as well.

A series of site complexes have now been identified and studied in the Conejo Corridor region, and it is very probable that some exist in the Simi Corridor region as well. Almost without fail, each of these complexes contains deposits or components that represent the entire temporal span of inland occupation. As well, there is no clear functional or adaptational differentiation between earlier versus later temporal components of these complexes. That is, even while there is a general tendency towards more complexity in the nature and variability of the tool assemblages towards the present, it is now clear that even some of the earlier temporal components in the region exhibit subsistence. From the initial occupation of this inland region, a much generalized foraging strategy was followed—not necessarily by every site complex in the area, but certainly by the inland occupation when considered as a whole.

Thus, in the Conejo Corridor not only do early occupations exhibiting artifact assemblages occur that resemble more typically 'later' assemblages, which heavily emphasized hunting and hunting tools, but they also resemble late sites that appear like temporally 'earlier' sites, with a dominance of groundstone tools and chopping implements. The establishment of inland sites some 3,500 years ago in the Conejo Corridor appears to represent an effort to exploit a variety of noncoastal environments by following a number of subsistence strategies. This point of initial exploitation and occupation may correlate with a shift to the modern climatic regime, which also appears to occur at this time. Further, it is clear that no single subsistence strategy uniquely characterized any specific time period; instead, a generalized foraging pattern appears to have held for the entirety of the prehistoric occupation of the area.

3.16.1.2 Native American Coordination

To ensure that all Native American knowledge and concerns over potential Tribal Cultural Resources (TCRs) that may be affected by implementation of the Proposed Project are addressed, the City of Moorpark provided formal notification to applicable Native American Governments pursuant to Assembly Bill 52 (AB 52).

A consultation meeting took place via telephone on Thursday, June 25, 2020, which included Jairo F. Avila, M.A., RPA., Tribal Historic and Cultural Preservation Officer of the Fernandeño Tataviam Band of Mission Indians, Mr. Douglas Spondello, AICP, Planning Manager for the City of Moorpark, and Dana DePietro, PhD, RPA, Associate Director, Cultural Resources for First Carbon Solutions.

3.16.1.3 Archaeological Resources

As discussed in **Section 3.4, Cultural Resources**, a Phase I archaeological survey conducted within the boundaries of the entire specific plan area concluded that there is no presence of prehistoric or historic cultural resources on the property. Accordingly, the lack of prehistoric archaeological remains can be presumed to correlate with the relatively dry conditions within the study area, the apparent low density

of prehistoric archaeological sites in the Moorpark region, and the tendency for such sites to cluster tightly around permanent water sources.

On February 26, 2020, FirstCarbon Solutions (FCS) conducted an updated cultural resources records search and literature review for the Hitch Ranch Specific Plan to supplement the earlier cultural resources assessment was completed by W&S Consultants in 2003. This included an updated records search conducted at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton for the project area and a 0.50-mile radius beyond the project boundaries. The results of the records search indicate that six resources have been recorded within 0.5 mile of the project area; none of which are located within the project area. In addition, 44 area-specific survey reports are on file with the SCCIC for the project area and its 0.50-mile search radius, 11 survey reports (S-00607, S-02852, S-02847, S-01656, S- 02386, S-02741, S-02890, S-02390, S-03263, S-01329, S-02314) are completely or partially within the project area indicating that the immediate area has previously been surveyed for cultural resources. **Table 3.16-1, Archaeological Cultural Resources with a 0.5 Mile Radius,** summarizes previously recorded archaeological cultural resources within a 0.5-mile search radius of the Proposed Project site.

Table 3.16-1
Archaeological Cultural Resources within a 0.5 Mile Radius

Resource No.	Resource Description	Date Recorded
P-56-001503	CA-VEN-001503: VAM-1 AP02 (Lithic scatter)	2014
P-56-001574	CA-VEN-001574: SunCal 1 AP02 (Lithic scatter)	1998, 2014
P-56-100196	SCE MN-1 AP02 (Lithic scatter), AP15 (Habitation debris)	2007, 2008

Source: SCCIC Records Search, February 26, 2020.

Based on the records search and survey, it is evident that the property was peripheral to the prehistoric and historic habitation and use of the Moorpark region. However, given the prehistoric and historic setting of the general vicinity of the specific plan area, there is a possibility that some tribal cultural resources may be present on the site.

3.16.2 REGULATORY FRAMEWORK

3.16.2.1 Federal

Archaeological Resources Protection Act

United States Code, Title 16, Sections 470aa-mm. The Archaeological Resources Protection Act became law on October 31, 1979, and has been amended four times. It regulates the protection of archaeological resources and sites that are on federal and Indian lands.

Native American Graves Protection Act

The Native American Graves Protection and Repatriation Act is a federal law passed in 1990 that provides a process for museums and federal agencies to return certain Native American cultural items, such as human remains, funerary objects, sacred objects, or objects of cultural patrimony, to lineal descendants and culturally affiliated Indian tribes.

National Register of Historic Places

The National Register of Historic Places (NRHP) is authorized by National Historic Preservation Act of 1966. It is the nation's official list of buildings, structures, objects, sites, and districts worthy of preservation because of their significance in American history, architecture, archeology, engineering, and culture. The NRHP recognizes resources of local, state, and national significance that have been documented and evaluated according to uniform standards and criteria.

The NRHP includes districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture. The NRHP is administered by the National Park Service and currently consists of more than 76,000 listings, including all historic areas in the National Park System, over 2,300 National Historic Landmarks, and properties that have been listed because they are significant to the nation, a state, or a community.

Properties are nominated to the NRHP by the State Historic Preservation Officer (SHPO) of the state in which the property is located, by the Federal Preservation Officer for properties under federal ownership or control, or by the Tribal Historic Preservation Officer if a property is on tribal lands.

Any individual or group may prepare a NRHP nomination. Thorough documentation of physical appearance and historic significance of the property is required. In California, completed nominations are submitted to the Office of Historic Preservation for review. It is then submitted to the State Historical Resources Commission, who determines whether or not the property meets criteria for evaluation and

recommends approval or disapproval to the SHPO. Nominations approved by the SHPO are forwarded for consideration to the Keeper of the National Register at the National Park Service in Washington, D.C.

During the time the proposed nomination is reviewed by the SHPO, property owners and local officials are notified of the intent to nominate. Local officials and property owners are given the opportunity to comment on the nomination, and owners of private property are given an opportunity to object to or concur with the nomination. If the owner of a private property or the majority of owners objects to the nomination, the SHPO may forward the nomination to the National Park Service for a determination of eligibility only.

3.16.2.2 State Laws and Regulations

Senate Bill 18

Senate Bill (SB) 18 (*Government Code*, Section 65352.3) incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB 18 requires public notice to be sent to tribes listed on the Native American Heritage Commission's SB 18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the *Public Resources Code* that may be affected by the proposed adoption or amendment to a general or specific plan.

Assembly Bill 52

AB 52, which was approved in September 2014 and became effective on July 1, 2015, requires that CEQA lead agencies consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribe. A provision of the bill, chaptered in CEQA Section 21084.2, also specifies that a project with an effect that may cause a substantial adverse change in the significance of a Tribal Cultural Resource (TCR) is a project that may have a significant effect on the environment.

Defined in Section 21074(a) of the Public Resources Code, TCRs are:

1. Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are either of the following:

    a. Included or determined to be eligible for inclusion in the CRHR; or

    b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

TCRs are further defined under Section 21074 as follows:

a. A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and

b. A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a TCR if it conforms with the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe(s) pursuant to newly chaptered Section 21080.3.2, or according to Section 21084.3. Section 21084.3 identifies mitigation measures that include avoidance and preservation of TCRs and treating TRCs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource. As described above, the County is consulting with two tribes regarding the project's impacts to TCRs, and appropriate mitigation, if any, for those impacts.

3.16.2.3 Local Plans and Policies

The following goals and policies of the *City of Moorpark General Plan* Land Use Element are applicable to the proposed Hitch Ranch Specific Plan project.

Goal 15: Maintain a high quality environment that contributes to and enhances the quality of life and protects public health, safety, and welfare.

Policy 15.3: Natural and cultural resources having significant educational, scientific, scenic, recreational, or social value shall be protected and preserved.

3.16.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds for determining the significance of impacts related to tribal cultural resources are contained in the environmental checklist form contained in Appendix G of the most recent update of the *CEQA Guidelines*. Impacts related to cultural resources are considered significant if the project would:

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

  – Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

– A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.16.4 PROJECT IMPACTS

Impact TCR-1 **Cause a substantial adverse change in the significance of a tribal cultural resource. defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant with Mitigation

Approximately 198.77 acres (71.7 percent) of the Project site would be graded under of implementation of the proposed specific for the construction of roadways and building foundations, and trenching for utilities and storm drains. This activity may affect undiscovered tribal cultural resources in the site, should there be any.

As noted above in **Section 3.16.1.3,** there are three archaeological sites that are prehistoric in nature within 0.5 mile of the project area. The resources P-56-001503, P-56-001574, and P-56-100196 consist of three lithic scatters and a habitation site, potentially consisting of middens, house-floors, and/or burials. While none of the sites are located within or in close proximity to the Project site boundary, their presence in the vicinity indicates a higher potential for undiscovered buried archaeological deposits within the project area. Two survey reports encompassing the entire project area (S-01329 and S-02314) are previous studies completed by W&S Consultants in 1994 and 2003. The results of both surveys were negative for historic or prehistoric resources; however, the report mentions that there appears to be a reasonable possibility that some historical remains may be present within the central portion of the study area.

Mitigation Measure CUL-1, would apply to tribal cultural resources should they be discovered during ground disturbing activities. **Mitigation Measure CUL-2** would apply in the case that human remains are discovered during ground disturbing activities, which could be a tribal cultural resource. Furthermore, the City of Moorpark provided formal notification to applicable Native American Governments pursuant to AB 52 (refer to **Appendix 3.16.A** and **B**), of which the City has received one response from a member of the Fernandeño Tataviam Band of Mission Indians. This process, along with **Mitigation Measures CUL-1 and CUL-2,** would reduce impacts to a less than significant level.

3.15.5 CUMULATIVE IMPACTS

Impacts upon tribal cultural resources tend to be site specific and are assessed on a site-by-site basis. Where such resources exist, buildout of the Project site together with other development in the City and region would result in an incremental adverse impact to tribal cultural resources. In this case, the cumulative impact would be to unknown tribal cultural resources. However, provided that proper mitigation, as defined by *State CEQA Guidelines* Section 15126.4(b), is implemented in conjunction with cumulative development in the area, no significant cumulative impacts are anticipated.

3.16.6 MITIGATION PROGRAM

3.16.6.1 Mitigation Measures

CUL-1: Due to the potential that archeological resources may be present on the Project site, the City of Moorpark shall require a note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources, including prehistoric Native American artifacts. Construction personnel associated with earth moving equipment, drilling, grading, and excavating, shall be provided with basic training conducted by a qualified archaeologist, to be retained and compensated by the development team, with the approval of the City of Moorpark. Issues that shall be included in the basic training will be geared toward training the applicable construction crews in the identification of archaeological deposits, further described below. Training will include written notification of the restrictions regarding disturbance and/or removal of any portion of archaeological deposits and the procedures to follow should a resource be identified. The construction contractor, or its designee, shall be responsible for implementation of this measure. A Native American monitor shall be provided an opportunity to attend the pre-construction briefing if requested.

A Native American monitor from a consulting Tribe under AB 52 monitor and a qualified archeologist, to be compensated by the development team, shall be available on an "on-call" basis during ground disturbing construction in native soil to review, identify and evaluate cultural resources that may be inadvertently exposed during construction.

If archaeological remains or tribal cultural resources are uncovered, all construction activities within a 100-foot radius shall be halted immediately until a qualified archaeologist, in consultation with the Native American monitor, shall evaluate whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. If any previously undiscovered resources are found during construction the City of Moorpark Community Development Department shall be contacted, and the resource shall be evaluated for significance in terms of CEQA criteria by a qualified archaeologist. Prehistoric archaeological site indicators include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and handstones, and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone

and shell remains, and fire-affected stones. Historic period site indicators generally include but are not limited to: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps). If City and the qualified archaeologist determine the resource to be significant under CEQA, they shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. Contingency funding and a time allotment sufficient for recovering an archeological sample or to employ an avoidance measure may be required. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a formal Archaeological Monitoring Plan (AMP) which will include a research design and archaeological data recovery plan for the resource. Development and implementation of the AMP will be determined by the City of Moorpark and treatment of any significant cultural resources shall be undertaken with the approval of the project applicant, and the City. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System [CHRIS]), and provide for the permanent curation of the recovered materials. The City of Moorpark and/or development team shall, in good faith, consult with the Fernandeño Tataviam Band of Mission Indians and consulting Tribes on the disposition and treatment of any recovered materials. A Monitoring Closure Report shall be filed with the City of Moorpark at the conclusion of ground disturbing construction if archaeological resources were encountered and/or recovered. After the find has been appropriately mitigated (as defined by State CEQA Guidelines Section 15126.4(b)), work in the area may resume.

Timing/Implementation: During ground disturbing activities

Enforcement/Monitoring: City of Moorpark Community Development Department, and the development team retained qualified archaeologist

CUL-2: If human remains or funerary objects are unearthed during any activities associated with the project, *State Health and Safety Code* Section 7050.5 requires that no further disturbance shall occur within a 100-foot buffer of the find until the County coroner has made the necessary findings as to origin and disposition pursuant to *Public Resources Code* Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC), the Fernandeño Tataviam Band of Mission Indians, and consulting Tribes. The NAHC will then contact

the deceased Native American's most likely descendant, who will then serve as consultant on how to proceed with the remains (i.e., avoid, rebury).

Timing/Implementation: During ground disturbing activities

Enforcement/Monitoring: City of Moorpark Community Development Department, and the development team retained qualified archaeologist

3.16.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The development of the Hitch Ranch Specific Plan project would have less than significant impacts related to Tribal Cultural Resources with implementation of the mitigation program.

3.17 UTILITIES AND SERVICE SYSTEMS

INTRODUCTION

This section evaluates the potential impacts from the Hitch Ranch Specific Plan Project (Project) on the City's utilities and service systems that would serve the Project site. This includes the potential for the Proposed Project to result in impacts associated with the provisions of new or physically altered utility facilities, the construction of which could cause significant environmental impacts, in order to maintain existing service or other applicable performance objectives.

Specifically, this section includes an examination of wastewater service, water supply, and solid waste service. Each subsection includes descriptions of existing facilities, service standards, and potential environmental impacts resulting from construction and operation of the Proposed Project. Mitigation measures intended to reduce impacts to utilities are proposed, where appropriate, to avoid or reduce significant impacts from the Proposed Project.

Information and analysis related to the storm water drainage system can be found in ***Section 3.9, Hydrology and Water Quality****. Information and analysis related to electrical power and natural gas can be found in* ***Section 3.5, Energy****.*

The analysis in this section was prepared based on information from the City of Moorpark, the Ventura County Department of Water and Sanitation, and CalRecycle.

3.17.1 REGULATORY FRAMEWORK

3.17.1.1 State Laws and Regulations

Urban Water Management Planning Act

California State Assembly Bill 797 (California Water Code Section 10610, et seq.), adopted in 1983, requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or more than 3,000 acre-feet of water on an annual basis to prepare an Urban Water Management Plan (UWMP). The intent of the UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands. UWMPs must be updated every five years, in years ending in zero and five.

Senate Bills 610 and 221

Legislation placed additional requirements upon the Ventura County Waterworks District (VCWWD) No. 1 as the water purveyor for the Hitch Ranch. SB 221 (Kuehl) amended the Subdivision Map Act, and

SB 610 (Costa) amended Part 2.10 of the *California Water Code* regarding water supply availability. These amendments took effect on January 1, 2002, and require generally that water retail providers demonstrate that sufficient and reliable sources are available in order for local agencies to evaluate large-scale developments, and complete the environmental review process.

SB 610 requires cities and counties that determine a project is subject to the California Environmental Quality Act (CEQA) to identify any public water system that may supply water for the project, and to require those public water systems to prepare a specified water supply assessment to be included in any environmental document prepared for the project. The assessment includes an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the Proposed Project and water received in prior years, pursuant to those entitlements, rights, and contracts. If the assessment concludes that water supplies are or will be insufficient, the public water system shall also submit plans for acquiring additional water supplies.

SB 221 requires written verification from the applicable public water system that sufficient water supply is available for a subdivision of property of more than 500 dwelling units prior to approval of a tentative or parcel map.

Consistent with the intent of Part 2.10 of the *California Water Code*, information provided below is based on consultation with the City of Moorpark (the project applicant), VCWWD No. 1, and Calleguas Municipal Water District (CMWD). The information provided satisfies the requirements of SB 610. With respect to SB 221, the written verification required by that statute will not be needed until the City of Moorpark is prepared to consider a tentative map for the subdivision of 500 or more units or a development agreement that includes such a subdivision.

Water Conservation Act of 2009 (SBX7-7)

The Water Conservation Act of 2009 (also known as Senate Bill X7-7) established a statewide water conservation target of 20 percent reduction in water use by 2020 compared to the State's 2005 baseline use. The Act requires that retail water suppliers define in their 2010 urban water management plans the gallons per capita per day (gpcd) targets for 2020, with an interim 2015 target. The legislation also requires the California Department of Water Resources, in consultation with other state agencies, to develop a single standardized water use reporting form, which would be used by both urban and agricultural water agencies. EID's 2015 UWMP, adopted in May 2016, complied with these requirements.

Assembly Bill 939 and Senate Bill 1016

The California Integrated Waste Management Act of 1989, or Assembly Bill 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of all solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures to assist in reducing these impacts to less-than-significant levels. With the passage of Senate Bill 1016 (the Per Capita Disposal Measurement System) in 2006, only per capita disposal rates are measured to determine if a jurisdiction's efforts are meeting the intent of Assembly Bill 939. Therefore, the 50 percent diversion requirement should be measured in terms of per-capita disposal expressed as pounds per person per day.

3.17.1.2 Local Plans and Policies

The following goals and policies contained within the *Moorpark General Plan* are applicable to the Proposed Project.

Land Use Element

Goal 12: Ensure that a full range of public facilities and services are provided to meet the needs of the community.

Policy 12.1: Development shall be permitted only when adequate public facilities and services are available or will be provided when needed.

Policy 12.2: Efficient and equitable delivery of urban services shall be ensured by the development of capital improvement plans for urban services which 1) identify existing and future (general plan buildout) needs; 2) establish a phasing plan for providing new urban services commensurate with needs generated by existing and future development; and 3) assure that financing is available to provide adequate necessary facilities and services prior to approval of any project which would exceed the capacity or significantly reduce the quality of existing services.

Policy 12.7: Where feasible, shared use programs between public and private service and facility providers shall be encouraged.

Policy 12.8: Any proposed project shall be required to contribute its fair share of the cost of providing adequate public services and facilities.

3.17.2 POTABLE WATER SERVICE

The section is based on a Water Supply Assessment (WSA) prepared by Milner-Villa Consulting in March 2019 and updated in February 2020. Copies of both of these documents are included in **Appendix 3.17** of this EIR.

3.17.2.1 Existing Conditions

VCWWD No. 1 (District) provides its customers with local groundwater and imported water from the CMWD. Historically, imported water has made up approximately 80 percent of the District's water supply. During periods of drought or limited groundwater supply, the District must rely on nearly 100 percent imported water to meet water supply demands. Recycled water (for nonpotable demands) is also currently available in a limited portion of the District's service area.

Local Groundwater Supply

The Las Posas Valley Basin supplies all the local groundwater for the District. The Las Posas Valley Basin is 18 miles long and 4.5 miles wide with land usage consisting primarily of agriculture except in Moorpark, which is the only significant development in the basin. The basin has been subdivided into West, East, and South Basins. Historically, the District has produced groundwater from the East Las Posas Basin, which is separated from the West Las Posas Basin by a north-trending fault. The District is also planning a groundwater production and treatment system that would allow extraction from the South Las Posas Basin. Quality of the water in the basin is such that chlorination is the only treatment required to comply with Title 22 Primary Standards. The primary aquifer system, the Lower Aquifer System (LAS), consists of the Fox Canyon Aquifer and the Grimes Canyon Aquifer. Although estimates of storage capacity vary, the Las Posas Valley Basin is generally believed to have a total storage capacity of approximately 345,000 acre-feet (AF).

Fox Canyon Aquifer

The Fox Canyon Aquifer is composed of marine and non-marine sand and gravel. Its thickness ranges from 200 to 400 feet with a transmissivity of 20,000 to 100,000 gallons per day per foot (gpd/ft). This aquifer lies in the lower Pleistocene San Pedro Formation.

Grimes Canyon Aquifer

The aquitard that separates the Fox Canyon and the underlying Grimes Canyon Aquifer is composed of fine sediments with low permeability and attains a maximum thickness of about 100 feet in the Las Posas Basin. The Grimes Canyon Aquifer is composed of marine sand with minor gravel, with a maximum thickness of 400 feet and whose bottom forms the effective base of fresh aquifers in the basin. This aquifer lies in part of the Plio-Pleistocene Santa Barbara Formation.

Fox Canyon Groundwater Management Agency

The Fox Canyon Groundwater Management Agency (FCGMA) was established in Ventura County by a special act of the State Legislature in 1982 to control groundwater overdraft and minimize the threat of seawater intrusion in the upper and lower aquifer systems of the Oxnard Plain. Primary objectives of the FCGMA policies include elimination of overdraft in their service area, which includes the East and West Las Posas Basins, and bring these basins to a "safe yield" condition by the year 2010. A "safe yield" condition is achieved when groundwater extraction from a basin are approximately equal to annual replenishments of water into the groundwater basin.

FCGMA Management Plans

Major Elements of the LAS Plan include the following:

(1) Monitoring for seawater intrusion in the LAS near the coastline by constructing four new monitoring wells.

(2) Development of Contingency Plans in the event seawater intrudes the LAS. These plans call for conservation and reclamation efforts, increased monitoring and pumping restrictions.

(3) Implementation of pumping restrictions in the North Las Posas Basin would prohibit expansion of all types of water use to land on or topographically above the LAS outcrop or to other non-water bearing areas. This outcrop more or less parallels the south flank of South Mountain. The restriction would regulate the drilling of new LAS water wells and use of groundwater in the North Las Posas Basin to ensure that the adopted FCGMA groundwater pumping projections are not exceeded.

(4) Pumpage will be accurately monitored throughout the FCGMA by requiring semiannual reporting of metered extractions. Results will be used to verify water use rates and to limit groundwater extractions in basins where adopted FCGMA extractions are exceeded after adjustment of the date to account for wet and dry years.

Ordinance No. 8

On June 26, 2002, the FCGMA adopted Ordinance No. 8. This ordinance conglomerates each of the active individual ordinances (Ordinances Nos. 1.3, 3.2, 4.3, and 5.9) into a single comprehensive ordinance. One of the key elements of FCGMA Ordinance No. 8 is the gradual reduction in groundwater extractions by all municipal pumpers except those with baseline extraction allocations or annual efficiency extraction allocations. FCGMA assigned allocations to each groundwater pumper. The reduction schedule is based on the average "historical extraction" using the five calendar years of reported extractions from 1985 to 1989. While groundwater rights in the Las Posas Basin have not been definitively adjudicated by a court, the extraction allocations reflect the prior production of groundwater by each pumper, which is one of the key considerations in determining groundwater rights.

Groundwater extraction allocations for each well are set according to the following formula:

- 1992-1994 extraction allocation = 95 percent of historical extraction, as adjusted.
- 1995-1999 extraction allocation = 90 percent of historical extraction, as adjusted.
- 2000-2004 extraction allocation = 85 percent of historical extraction, as adjusted.
- 2005-2009 extraction allocation = 80 percent of historical extraction, as adjusted.
- After 2009 extraction allocation = 75 percent of historical extraction, as adjusted.

Baseline allocations are not subject to the incremental reductions. Pursuant to its Ordinance No. 8, FCGMA also has the authority to grant an “annual efficiency allocation” to those agricultural users whose operations have demonstrated a certain level of efficiency and conservation in their water usage. Thus, although an efficiency allocation may be different than the extraction allocation, such efficiency allocations further the goal of bringing the basin to safe yield by encouraging water conservation.

Schedule for reducing groundwater extractions in the Las Posas Basin was based on detailed studies conducted by FCGMA that determined the reduction in groundwater extractions that would be necessary to eliminate overdraft by 2010 and bring the Basin into a safe yield condition. FCGMA plans to achieve these reductions in groundwater extraction through a number of measures identified in Ordinance No. 8, including (1) prohibition of the operation of any groundwater extraction facility without a valid extraction allocation from FCGMA, (2) monitoring the level of extractions through metering of all wells, (3) imposition of a surcharge on all over-extractions in an amount sufficient to purchase replenishment water, and (4) imposition of criminal and civil penalties on any person who fails to comply with Ordinance No. 8.

In July 2005, the FCGMA approved Ordinance No. 8.1, a revision to Ordinance No. 8, which became effective in September 2005. One of the changes in Ordinance No. 8.1 is the change of title from Agency Coordinator to Executive Officer to run the daily functions of the FCGMA.

Unused groundwater allocation (or conservation credits) can be accumulated and used in future years if additional water supplies are needed without incurring a FCGMA monetary penalty as long as the aquifer system is not damaged. Conservation credits are obtained by extracting less groundwater than the operator's historical extraction allocation (FCGMA Ordinance No. 8, Section 5.7.1.1). These allocations and credits are subject to the availability of groundwater. Credits are essentially "banked" in the aquifer and stored for later use by the District (District's UWMP, pp. 10, 14). The District can also accrue groundwater storage credits by importing and recharging imported water to the aquifers. These credits can also be used in the future without incurring the FCGMA penalty as long as the aquifer system is not damaged.

Safe yield estimate for the FCGMA area is approximately 120,000 afy. Allowing for changes in annual rainfall, the reductions in groundwater allocations imposed by the FCGMA have significantly reduced groundwater extractions. FCGMA met its goal of reducing extractions to safe yield levels by 2010 via scheduled 5% reductions, mandated in 1990 by FCGMA Ordinance No. 5.

District Wells

The District owns five wells in the East Las Posas Basin and has a current total pumping capacity of 2,170 afy (3,500 gpm). However, the District's current groundwater allocation is 1,756 afy. District wells provide redundant extraction facilities should one or more existing wells become inoperative and will allow for increased extraction capacity during emergency situations. This redundancy allows the District to utilize groundwater conservation credits to supplement its water resources should imported water deliveries be reduced or curtailed during a drought or emergency.

As mentioned above, the District has a groundwater allocation from FCGMA. A copy of the District's allocation through the FCGMA is provided in **Appendix 3.17**. Although each well has an associated allocation, the District has opted to combine the individual well allocations into one allocation for the District. This combined allocation provides the District with some flexibility by allowing them to pump different amounts of water from any given well or wells (up to the total allocation amounts) based on system demands.

Table 3.17-1, Projected District Water Resources 2020-2040 (af), provides a projected summary of the District's water resources through 2040. The District anticipates pumping approximately 6,756 afy in

2040. This pumping will include up to a maximum of 1,756 afy from District potable wells and a maximum of 5,000 afy from future groundwater desalter facilities.

Table 3.17-1
Projected District Water Resources (2020-2040) (af)

Source	2020	2025	2030	2035	2040
Existing Groundwater Pumping	1,756	1,756	1,756	1,756	1,756
Future Groundwater Pumping	00	00	00	00	00
Imported Surface Water	10,204	10,870	10,911	10,880	10,943
Recycled Water	1,400	1,600	1,800	2,000	2,200
Total	**13,360**	**14,226**	**14,467**	**14,636**	**14,899**

Source: Water Supply Assessment Hitch Ranch Development, February 2020

Imported Surface Water

The District purchases imported surface water from CMWD, which in turn purchases State Project Water from Metropolitan Water District of Southern California (MWD). Imported surface water originates in Northern California and is conveyed over 500 miles to Southern California through the State Water Project's (SWP) system of reservoirs, aqueducts and pump stations. SWP water is filtered and disinfected at MWD's Joseph Jensen Filtration Facility in Granada Hills. CMWD receives the treated water from MWD via the MWD West Valley Feeder and either stores the treated water in Lake Bard to be treated later or distributes the water among its purveyors. The District receives water from CMWD at 10-metered turnouts.

Existing agreements the District has with CMWD do not guarantee the quantity of water the District may purchase. However, to the extent that water is available to CMWD, CMWD has an obligation to provide water to meet demands of its member agencies, such as the District, by virtue of CMWD's enabling statute, and governing regulations and applicable agreements with the member agencies. CMWD's historical practice confirms that obligation and CMWD's satisfaction thereof. CMWD, founded in 1953, currently wholesales water to 19 local purveyors, which in turn deliver water to approximately 630,000 people (residents, businesses, and agriculture). CMWD supplies approximately 73 percent of the total demand within its service area, which is roughly 375 square miles in southern Ventura County. CMWD has served the needs of the District, without fail except for a few days following the Northridge Earthquake.

Similarly, MWD has the same obligation to provide available water to its member agencies, such as CMWD, based on its existing statute, governing regulations, and applicable agreements. MWD was organized in 1928, covers nearly 5,200 square miles and is currently composed of 26 member agencies, including cities, municipal water districts, and one county water authority. Those member agencies in turn, serve water to residents in more than 145 cities and 94 unincorporated communities. Both MWD and CMWD are undertaking a variety of programs to increase the reliability of imported water deliveries. In April 2015, severe drought conditions resulted in a 15 percent cut in imported water deliveries to WMD. One year later, due to lower demands and water-saving efforts the cuts were rescinded. Both CMWD and MWD, due to their historical performance and scope of operations, have provided and will continue to provide a reliable source of water to the District.

Historically, the District has depended on imported surface water for a significant portion of the water supplies. Average annual imported water purchases in 2015 were 7,717 afy. Recent efforts by the District to maximize use of local groundwater slightly reduced purchases of imported surface water to levels consistent with the last 20 years.

Imported surface water from CMWD will continue to supplement the local groundwater supply for the District. **Table 3.17-1** provides a projected summary of the District's water resources through 2040. The District projects reducing purchases of imported surface water to 5,943 afy by 2040.

Water Quality

The District provides water of good quality to its customers. Local groundwater from the Las Posas Valley Basin may be treated for iron and manganese, or just chlorinated, depending on the well. Groundwater from the South Las Posas Basin has high levels of TDS and chlorides and requires treatment prior to potable use and as such has not been utilized by the District. However, with the implementation of the future District desalter facilities, this supply will become available. A copy of the District's 2018 Annual Water Quality Report, which summarizes the District's water quality, is provided in **Appendix 3.17.** The District does not anticipate the loss of any of their current or planned supplies due to water quality impacts.

Recycled Water

Wastewater from the District's water service area is collected and treated by the Wastewater Division of the District. The District operates and maintains the localized sewer collection pipelines and trunk sewers, primarily in the City of Moorpark, that feed into Moorpark Wastewater Treatment Facility located along California Highway 118 just west of the Moorpark City limits. The plant provides advanced primary and secondary treatment for disposal to percolation ponds as well as tertiary treatment for

recycled water effluent. In 2015, the plant had an average inflow of 2.0 MGD and supplied average flows of 0.54 MGD of recycled water for landscape irrigation and 0.76 MGD for percolation and eventual groundwater recharge. As mentioned previously, this treatment facility has a total capacity of 5.0 MGD and a tertiary capacity of 1.5 MGD.[1]

The District forecasts that new customers will increase the recycled water to 1,400 afy by 2020 and 2,200 afy by 2040, necessitating an expansion of the plant's tertiary treatment capacity. Additional details are provided in the District's 2015 UWMP.

Potential Uses of Recycled Water

The District recognizes the potential uses of recycled water in its community, such as large landscaped areas including homeowner's associations, City medians, parks, school yards, industrial and other uses. Because of this recognition, the District is currently implementing an expansion of it recycled water system to serve additional landscape irrigation demands within the Moorpark Country Club Estates community including nurseries, homeowner's associations and City medians, as well as its first agricultural irrigation customers. The Hitch Ranch Specific Plan project would install recycled water lines (sometimes known as 'purple pipe') on-site for future connection to the District's recycled water infrastructure when it is expanded close enough to the Project site to allow a connection. The Project would utilize the recycled water for on-site irrigation once that service is made available by the District.

Planned Water Supplies

The District continually reviews practices that will provide its customers with adequate and reliable supplies. District staff continues to ensure the water quality is safe and the water supply will meet present and future needs in an environmentally and economically responsible manner. The District consistently coordinates its long-term water shortage planning with CMWD and FCGMA.

The District projects water demand will remain relatively constant over the next 25 years due to minimal growth combined with water conservation efforts. Any new projects will be implemented to better manage and take advantage of the Las Posas Valley Groundwater Basin resource, to increase recycled water use, and to replace or upgrade inefficient wells, rather than to support population growth and new development. Projects included in the District's Capital Improvement Program will improve the District's water supply reliability and enhance water operations. Those projects include the following:

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1 Ventura County Waterworks District (VCWWD) No. 1. 2018. *Annual Water Quality Report.*

- Moorpark Desalter – A Preliminary Design Report has been prepared by the District. Following construction of a pilot test well, the District will prepare CEQA documents and obtain FCGMA approval for pumping South Las Posas Basin groundwater without extraction allocations, final design, and construction. This project will add 5,000 afy of reliable, local supply to the District, reducing the need for imported water.

- Recycled Water Expansion – The existing tertiary treatment capacity of the Moorpark Wastewater Treatment Plant is currently 1.5 MGD. While this improvement will not impact the District's potable water system, it will enhance water supply within the District by reducing the need for imported water. The District will continue to convert existing uses currently being served from the potable water system to the recycled water system. In 2015, the District distributed 599 afy of recycled water. The District anticipates distributing approximately 1,100 afy by 2018 with the conversion of an existing golf course to the recycled water customer base. It is estimated that the demand for recycled water supply will increase to 1,400 by 2020, necessitating an expansion of the Moorpark Wastewater Treatment Plant's tertiary treatment capacity by 2025.

- Well No. 20 Pumps & Water Treatment Facility – adds reliability to groundwater supply system (completed mid-2011).

- Home Acres Reservoir and Piping – adds storage to water system.

- Connection of Pressure Zones 994 and 1250 – adds reliability to water system.

- Conversion of Chemical Feed System – converts disinfection to chloramines for Well Nos. 95, 96, 97, and 98 to match imported water disinfection method.

- Well Nos. 95 and 98 Water Treatment Facility – enhance water quality of these sources of supply.

- 1.0 MG 944 Zone Reservoir – add storage to water system.

- Overall Water System Improvements – includes replacement of pressure regulating stations and pipeline.

Additional details regarding District, CMWD, and MWD planned water supply programs are provided in the District's 2015 UWMP.

Water Distribution System

Currently, there is a 12-inch water mainline in Poindexter Avenue and Gabbert Road and a 8-inch water mainline in Casey Road; both could serve the Project site. The precise configuration of the water service system for the Proposed Project would be determined when individual tract maps are prepared for each phase of the project.

3.17.2.2 Thresholds of Significance

As set forth in the initial study prepared for the Hitch Ranch Specific Plan project, the Proposed Project would result in a significant impact if:

- Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects; or
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

3.17.2.3 Project Impacts

Impact USWS-1 **Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.**

Impact USWS-2 **Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.**

Less than Significant

Anticipated project specific water demands are provided in **Table 3.14-2, Estimated Water Demands**. As indicated in **Table 3.14-2**, potable water demand at buildout would be approximately 286.4 afy while recycled water demand at buildout would be about 105.7 afy for an overall demand of approximately 392.1 afy.

Normal Year Supply and Demand

A summary of the District's projected 20-year water supplies and demands for normal conditions is provided in **Table 3.17-3, Normal Year Supply and Demand Comparison**. The District's total projected normal year water supplies available during the ensuing 20 years will meet the projected water demands associated with the Hitch Ranch Project and existing and other planned uses within the District's service

area. That determination is consistent with the analysis provided in the District's 2016 UWMP. Consequently, impacts under normal year conditions are considered to be less than significant.

Table 3.17-2
Estimated Water Demands

Sector	Quantity	Factor	Rate	Estimated Demand (afy)
Single Family Residence	427 du	3.3 ppdu	135 gpcpd	213.2
Multi-Family Residence	328 du	3.3 ppdu	60 gpcpd	72.8
City Park		200 people	2 gpcd	0.4
Total Potable Water Demand [1]				**286.4**
Landscape Irrigation – Residential	0 ac		0 afy/ac	0
Landscape Irrigation – Slopes	41.82 ac		1.9 afy/ac	79.5
Landscape Irrigation – Parks	10.0 ac		1.9 afy/ac	19
Landscape Irrigation – Road medians Strips	3.8 ac		1.9 afy/ac	7.2
Natural Open Space	61.75 ac		0 afy/ac	0
Total Recycled Water Demand [2]				**105.7**
Total				**392.1**

Source: Water Supply Assessment Hitch Ranch Project, March 2019
Notes: du = dwelling units; ac = acre; ppdu = persons per dwelling unit; gpcpd = gallons per capita per day; gpacpd = gallons per acre per day

Table 3.17-3
Normal Year Supply and Demand Comparison 2020-2040

	2020	2025	2030	2035	2040
Total Supply	13,360	14,226	14,467	14,636	14,899
Total Demand	12,345	12,880	13,240	13,560	13,893
Difference	**1,015**	**1,346**	**1,227**	**1,076**	**1,006**

Source: Water Supply Assessment Hitch Ranch Development , February 2020

Single Dry Year Supply and Demand

A summary of the District's projected 20-year water supplies for a single dry-year condition is provided in **Table 3.17-4, Single Dry Year Supply and Demand Comparison.** The District's total projected single dry year water supplies available will meet the projected water demands associated with the Hitch Ranch Project and existing and other planned uses within the District's service area up to 2035. However, in 2040, the District anticipates a deficit of 66 afy and may have to secure additional water supplies and/or the implementation of water conservation methods. It is anticipated that residential units within the Hitch Ranch Project will maximize the use of water conservation measures for both inside and

outside the dwellings. Residential homes will be built to current California Plumbing Code including indoor water conservation features. Residential lots will meet the California Model Water Efficient Landscape Ordinance. The use of these measures throughout Hitch Ranch Project will reduce the water demand and provide a buffer during single dry and multi dry years.

Table 3.17-4
Single Dry Year Supply and Demand Comparison 2020-2040

	2020	2025	2030	2035	2040
Total Supply	12,932	13,687	13,950	14,115	14,365
Total Demand	12,890	13,373	13,750	14,084	14,431
Difference	**42**	**314**	**200**	**31**	**-66**

Source: Water Supply Assessment Hitch Ranch Development , February 2020

Multi Dry Year Supply and Demand

A summary of the District's projected 20-year water supplies for multi dry year conditions is provided in **Table 3.17-5, Multi Dry Year Supply and Demand Comparison**. The District's total projected single multi dry year water supplies available during the ensuing 20 years will meet the projected water demands associated with the Hitch Ranch Project and existing and other planned uses within the District's service area. That determination is consistent with the analysis provided in the District's 2016 UWMP. Consequently, impacts under multi dry year conditions are considered to be less than significant.

Table 3.17-5
Multi Dry Year Supply and Demand Comparison 2020-2040

	2020	2025	2030	2035	2040
First Year					
Total Supply	13,149	14,143	14,442	14,606	14,918
Total Demand	12,636	13,104	13,472	13,798	14,138
Difference	**513**	**1,039**	**970**	**808**	**780**
Second Year					
Total Supply	13,149	14,143	14,442	14,606	14,918
Total Demand	12,636	13,104	13,472	13,798	14,138
Difference	**513**	**1,039**	**970**	**808**	**780**
Third Year					
Total Supply	13,149	14,143	14,442	14,606	14,918
Total Demand	12,636	13,104	13,472	13,798	14,138
Difference	**513**	**1,039**	**970**	**808**	**780**

Source: Water Supply Assessment Hitch Ranch Development, February 2020

As indicated above, water demands for the Proposed Project were included in the water demand projections in the District's 2016 UWMP. As indicated in the VCWWD No. 1's UWMP, the District's total projected water supplies available over the next 20 years will meet the projected water demands associated with the Proposed Project and existing and other planned uses within the District's service area under most scenarios. Therefore, the impact of the Proposed Project on water supplies under normal year and multiple dry year scenarios would be less than significant. In addition, the amount of production relied upon in the supply-demand analysis to meet future demands will necessitate an expansion of treatment facilities, with or without the Proposed Project. As such, the impact on the expansion of facilities would be less than significant as well.

However, under single dry year conditions, existing supplies are only expected to meet demand until 2035. In 2040, demand will surpass available water supplies and poses a potentially significant impact. The District would need to acquire additional water supplies (future potable and recycled water programs administered by the District, CMWD and MWD) and implementations of additional water conservation efforts to reduce the impact to a less-than-significant level.

3.17.2.4 Cumulative Impacts

Water demands for the Proposed Project and cumulative development were included in the water demand projections in the District's 2016 UWMP. As indicated in the VCWWD No. 1's UWMP, the District's total projected water supplies available over the next 20 years will meet the projected water demands associated with the Proposed Project and existing and other planned uses within the District's service area under normal and dry year scenarios. Impacts under the single dry year scenario would be reduced to a less-than-significant level once the water conservation strategies are implemented and potential additional water sources are secured. Therefore, the impact of the Proposed Project and cumulative development on water supplies under all scenarios would be less than significant. The expansion of water treatment facilities, necessary to meet future demands, presents a potentially significant cumulative impact, as does the possibility of needing additional groundwater extraction facilities as demand increases in the future.

3.17.2.5 Mitigation Program

Standard Conditions and Requirements

- The applicant shall comply with the applicable provisions of Ventura County Waterworks District No. 1 standard procedures for obtaining domestic water and sewer services for applicant's projects within the District.
- Prior to the issuance of a building permit, the applicant shall provide Ventura County Waterworks District with:
    a. Water and sewer improvement plans in the required format.
    b. Hydraulic analysis by a registered Civil Engineer to determine the adequacy of the proposed and existing water and sewer lines.
    c. Copy of fire hydrant location approvals by Ventura County Fire Protection District.
    d. Copy of District Release and Receipt from Calleguas Municipal Water District.
    e. Cost estimates for water and sewer improvements.
    f. Plan check, construction inspection, capital improvement charge, sewer connection few and water meter charge.
    g. Signed Contract to install all improvements and a Surety Bond.
- At the time water service connection is made, cross connection control devices must be installed on the water system in a manner approved by the Ventura County Waterworks District No. 1.

Mitigation Measures

No mitigation is required.

3.17.2.6 Level of Significance After Mitigation

The Proposed Project would not result in or contribute to any significant impacts on potable water supply.

3.17.3 WASTEWATER

3.17.3.1 Existing Conditions

Ventura County Waterworks District (VCWWD) No. 1 owns, operates, and maintains the sewer collection system and wastewater treatment facility that serves the City of Moorpark and adjacent Ventura County, surrounding community, and specific plan site. The Moorpark Wastewater Treatment Plant (MWWTP) is at 9550 Los Angeles Avenue just west of Moorpark City limits along State Highway 118, approximately 3.2 miles west of the intersection of Los Angeles Avenue at Moorpark Avenue.

The MWWTP has a design capacity of 5.0 mgd and has a state discharge permit for 1.5 mgd. The current average flow is 2.1 mgd.[2] The treatment plant is permitted to discharge directly into the Arroyo Simi.

VCWWD No. 1 also maintains a series of trunk and distribution lines to convey sewage to the treatment plant. The trunk line traverses west of the City of Moorpark, gradually increasing in size from 18 inches to 30 inches in diameter near the treatment plant.

3.17.3.2 Thresholds of Significance

As set forth in the initial study prepared for the Hitch Ranch Specific Plan project, the Proposed Project would result in a significant impact if:

- there would be a need for new local or regional water treatment or distribution facilities, or substantial alteration to the existing local or regional water treatment or distribution facilities.

3.17.3.3 Project Impacts

Impact USWW-1 **Require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.**

Impact USWW-2 **Require in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments:**

Less than Significant

2 Scott Meckstroth, Deputy Director, Ventura County, Department of Water and Sanitation, personal communication, November 13, 2020.

A sanitary sewer study was completed by Encompass Consultant Group in December 2019 for the Hitch Ranch Specific Plan and is available in **Appendix 3.17** of this EIR.

The proposed development will consist of an in-tract gravity collection system that will flow generally north to south toward the southwestern corner of the Project site. The in-tract sewer system will have a 12-inch diameter main line on "A" Street which will serve all onsite Planning Areas and will be sized to accommodate any future flows from the north. After crossing beneath the existing Walnut Canyon Channel and Union Pacific Railroad Tracks, the mainline will outfall to an existing manhole at the intersection of Poindexter Avenue and Gabbert Road.[3] The northerly 1,100 feet of the existing Gabbert Road main line is an 8-inch diameter pipe. At the intersection of Gabbert Road and Commerce Avenue, the line increases to a 12-inch diameter pipe and proceeds 1,300 feet south and west to Mira Sol Drive (via Los Angeles Avenue); both the existing 8-inch and existing 12-inch segments described above are undersized to effectively convey the anticipated flows from the Hitch Ranch development and would require upsizing to larger diameter lines in order to accommodate the anticipated flows. At minimum, a 15-inch dimeter pipe would be required from the intersection of Gabbert Road and Poindexter Avenue to the intersection of Los Angeles Avenue and Mira Sol Drive in order to convey the anticipated flows. From there wastewater will flow to the Moorpark Water Reclamation Facility located off E. Los Angeles Avenue, approximately 3.5 miles southwest of the Project site.

The Hitch Ranch development will be comprised of four residential planning areas consisting of 755 dwelling units, of which 427 are single-family detached dwellings (SFDs), 328 are multi-family dwellings (MFDs). An additional 110 MFDs are anticipated at a future apartment development on Lot 378 of Tentative Tract 5708. While this apartment development is considered 'Not a Part' of the Tentative Tract 5708 Hitch Ranch development improvements, the sewer flows generated from this future development will be factored into the design calculations to ensure adequate capacity of the sewer infrastructure in a fully developed condition. **Table 3.17-6** below details the proposed average day sewer generation loads anticipated for the Hitch Ranch development.

[3] A "Preliminary Evaluation of Proposed Walnut Channel Undercrossings" was conducted by Albus-Keefe & Associates, Inc., dated March 16, 2020, and is included as an Appendix to this EIR. The evaluation concluded that the undercrossing would pose little risk of damage due to ground vibrations provided a clearance of about 2 feet

Table 3.17-6
Proposed In-Tract Average Sewer Generation Loads

	VCWW Sewer Criteria		Proposed Average Sewer Load		
Dwelling Type	Dwelling Density	Per Capita Sewer Load (gallons/day)	Dwelling Units	Sewer Load (Gallons/day)	Sewer Load (cfs)
Single family	3.5	78	427	116,571	0.180
Multiple family	2.2	78	328	56,285	0.087
Total			755	172,856	0.267

Source: Encompass Consultant Group, December 2019

Following the determination of the average day sewer loads from the Hitch Ranch development, the proposed 15-inch sewer main line on High Street was analyzed to confirm sizing and capacity. The remainder of the in-tract wastewater conveyance system will consist of 8-inch diameter gravity sewer lines that will convey wastewater to the aforementioned 12-inch diameter mainline beneath Street "A." The sewer study determined that the proposed 8-inch lines servicing the multiple family residences on Lots 377 and 378 would convey approximately 20 percent less than the maximum allowable flow rate.

The above analysis indicates that at peak flow, all proposed sewer pipes less than 12 inches in diameter will remain within the VCWW design constraint of two-thirds full at peak flow. Additionally, proposed and existing pipes immediately downstream from the Hitch Ranch development which are 12 inches in diameter or larger will remain within the VCWW design constraint of three-quarters full at peak. With the exception of the alternate route option described above, the existing wastewater collection system is sufficient to accommodate the project area at build-out conditions. Further, the Moorpark Water Reclamation Facility is in the process of constructing tertiary treatment system upgrades. This will allow the recycled water system to be operated with more flexibility and efficiency. This upgrade will work in conjunction with the District's newly expanded recycled water distribution system.[4] Therefore, no significant project impacts are expected to occur.

3.17.3.4 Cumulative Impacts

The area in which cumulative wastewater service impacts would occur is the VCWWD No. 1 service area (see **Table 3.17-7**). The proposed Hitch Ranch Specific Plan project and future projects within the vicinity of the specific plan site would be served by the VCWWD No. 1 and would require extensions of and connections to existing wastewater collection and treatment facilities. The existing and planned facilities

4 Ventura County Public Works, Engineering and Development, https://www.vcpublicworks.org/wsd/engineeringanddevelopment/ accessed March 9, 2020.

owned and operated by VCWWD No. 1, in conjunction with the facilities planned by the specific plan project, would adequately serve planned growth within the City of Moorpark and throughout the remainder of the jurisdiction. Therefore, no significant cumulative impacts are expected to occur.

3.17.3.5 Mitigation Program

Standard Conditions and Requirements

- The applicant shall comply with the applicable provisions of Ventura County Waterworks District No. 1 standard procedures for obtaining domestic water and sewer services for applicant's projects within the District.

- Prior to the issuance of a building permit, the applicant shall provide Ventura County Waterworks District with:

  a. Water and sewer improvement plans in the required format.

  b. Hydraulic analysis by a registered Civil Engineer to determine the adequacy of the proposed and existing water and sewer lines.

  c. Copy of fire hydrant location approvals by Ventura County Fire Protection District.

  d. Copy of District Release and Receipt from Calleguas Municipal Water District.

  e. Cost estimates for water and sewer improvements.

  f. Plan check, construction inspection, capital improvement charge, sewer connection few and water meter charge.

  g. Signed Contract to install all improvements and a Surety Bond.

Mitigation Measures

No mitigation is required.

3.17.3.6 Level of Significance After Mitigation

Implementation of the Proposed Project would not result in any significant impacts on wastewater services.

3.17.4 SOLID WASTE DISPOSAL

3.17.4.1 Existing Conditions

Ventura County

Solid waste disposal in Ventura County is divided into four wastesheds: western, eastern, central, and northern. The specific plan site is located within the eastern wasteshed that is served by the Simi Valley Landfill and Recycling Center. Simi Valley, Moorpark, Thousand Oaks, and Oak Park are within the eastern wasteshed.

Simi Valley Landfill and Recycling Center

The Simi Valley Landfill and Recycling Center is owned by Waste Management of California, Inc. (WMC). The Simi Valley Landfill is located approximately 5 miles east of the specific plan site. The landfill is a fully permitted non-hazardous (Class III) solid waste landfill and recycling facility. The landfill design and construction incorporates the latest advances in landfill technology, including composite liners, leachate collection, and landfill gas recovery. The facility conducts environmental monitoring activities to ensure protection of air quality, groundwater, surface water, and the public health.

The operating permit (Solid Waste Facility Permit) for the landfill allows for a maximum permitted throughput of 9,250 tons per day (tpd). Approximately 88,300,000 cubic yards of capacity remain at the landfill. The landfill is estimated to cease operation in 2052 [5]

City of Moorpark Solid Waste Disposal

The City of Moorpark manages solid waste that is generated throughout the City. The City contracts with two haulers for residential service, and four haulers for commercial and industrial service. The majority of unprocessed waste (non-recyclable materials) is deposited in the Simi Valley Landfill.

The City of Moorpark generated a total of 32,336 tons of solid waste from four generator categories (i.e., residential, commercial, industrial, and other) in 2010. Solid waste collected from residential sources generated the lowest volume of waste with approximately 27.1 percent of the City's total. The highest volume was generated from other sources, which accounted for approximately 43.4 percent. Commercial and industrial sources accounted for 29.6 percent of the total waste. Approximately 39 percent (12,722

[5] CalRecycle. Solid Waste Information System: Simi Valley Landfill and Recycling Center. https://www2.calrecycle.ca.gov/swfacilities/Directory/56-AA-0007, accessed February 27, 2020.

tons) of the total waste generated was diverted by waste reduction and recycling programs in 2010. Residential diversion (curbside recycle and yard) was at 51 percent while commercial was at 28 percent during 2010.[6]

Solid Waste Generation Within the Specific Plan Area. The specific plan site is currently vacant. As a result, no solid waste is being generated from the site. The proposed uses within the specific plan site would generate solid waste, some of which would be diverted, while the remainder would be sent to the Simi Valley Landfill.

3.17.4.2 Thresholds of Significance

Generally, a project will have a significant effect on the environment if it will breach published national, state, or local standards relating to solid waste or litter control. For the purposes of this EIR, implementation of the Proposed Project would result in a significant solid waste (including hazardous waste) impact if it meets one or both of the following criteria:

- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.17.4.3 Project Impacts

Impact USSW-1 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

Impact USSW-2 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Less than Significant

Construction

Site preparation and construction activities would generate an estimated average of approximately 11,325 cubic yards of solid waste through specific plan buildout, assuming no recycling. Construction generation rates are based on 15 cubic yards of waste per residential unit. With implementation of

6 Teri Davis, Senior Management Analyst, City of Moorpark, personal communication, August 23, 2011.

Citywide recycling and other waste reduction programs, an estimated 4,417 cubic yards per year of construction waste would be diverted, bringing the total disposable waste to approximately 6,908 cubic yards. The diversion rate is based on the City's current diversion rate of 39 percent. Construction-related solid waste materials are expected to be typical construction debris, including wood, paper, glass, plastic, metals, cardboard, and green wastes. The wastes generated would result in an incremental and intermittent increase in solid waste disposal at the Simi Valley Landfill.

As mentioned previously, the Simi Valley Landfill currently has approximately 88,300,000 cubic yards of remaining capacity. Assuming a worst-case scenario (i.e., assuming no recycling), approximately 11,325 cubic yards of waste would be deposited at the Simi Valley Landfill. This represents approximately 0.01 percent of the available space at the landfill. The remaining capacity would be more than adequate to handle the Proposed Project's estimated solid waste from construction activities. Therefore, construction-related solid waste generated from the development of the specific plan would result in a less than significant impact.

Operation

At buildout, the specific plan land uses would generate approximately 1,636.9 tons of solid waste per year, based on generation rates provided by the City of Moorpark. **Table 3.14-8** illustrates the amount of solid waste generated by type of use. The proposed recreational uses are not analyzed in the table because the project's recreational uses do not include waste-generating uses. Waste composition is expected to consist of cardboard and plastic used for packaging, along with aluminum cans, glass, food wastes, and backyard green trimmings.

Table 3.17-8
Estimated Volume of Solid Waste Generated at Buildout and Estimated Diversion Rates

Use	Size	Population	Generation Factor (pounds/person/day)	Waste Generated (tons/year)	Materials Diverted (tons/year)	Waste to Landfill (tons/year)
Single-Family Residential	427 units	1,409	3.6	925.8	361.1	564.7
Multi-Family Residential	328 units	1,082	3.6	711.1	277.3	433.8
Total				**1,636.9**	**638,4**	**998.5**

Source: Impact Sciences, Inc., December 2019

It is noted that new development projects are required to cooperate with the City-wide programs and implement site-specific source reduction, recycling, and reuse programs. **Table 3.14-8** also identifies the volume of solid waste that is estimated to be diverted in conformance with the City's recycling program. The City's current diversion rate of 39 percent is used.

Any further improvements in the project's diversion percentage would be dependent on the intensification and expansion of Citywide programs to meet AB 939 requirements. Based on the above and assuming diversion, the operation of the specific plan would not result in significant impacts to solid waste disposal.

The Simi Valley Landfill, as previously stated, has a permitted daily capacity of 9,250 tons. The Proposed Project's estimated 998.5 tons of solid waste that would be disposed of at the landfill in a year represents only 0.03 percent of the permitted capacity in a given year. As a result, impacts are considered to be less than significant.

3.17.4.4 Cumulative Impacts

The City currently diverts 39 percent of its total waste-stream. A 50 percent diversion rate is required by AB 939. The Proposed Project would implement all Citywide programs associated with AB 939 and similar waste-stream reductions are expected (i.e., the City currently diverts and the proposed specific plan is estimated to divert approximately 39 percent of its total solid waste generated). Given this information, the Proposed Project, in conjunction with other cumulative projects in the City, would not result in cumulative impacts that are considered to be significant.

It should, however, be emphasized that estimates presented in this analysis represent a snapshot of current events. The City is obligated to meet the recycling and source reduction requirements of AB 939 and, therefore, must continue the recycling programs in place while also expanding these programs as needed. The estimate contained in **Table 3.17-8** does not account for any changes to the existing program, which may improve the diversion rates described above. The Proposed Project is expected to conform with any future changes to the City's existing waste reduction programs. If 50 percent of the total waste stream in the City were recycled and reused, then impacts would be less than significant.

3.17.4.5 Mitigation Program

Standard Conditions and Requirements

- Prior to issuance of Zoning Clearance for the first building permit, the applicant shall submit a Waste Reduction and Recycling Plan to the City's Solid Waste Management staff and the Community

Development Director for review and approval. The plan must include a designated building manager, who is responsible for initiating on-site waste materials recycling programs, including acquiring storage bins for the separation of recyclable materials and coordination and maintenance of a curbside pickup schedule.

- The building manager or designee shall be required to conduct a routine on-site waste management education program for educating and alerting employees and/or residents to any new developments or requirements for solid waste management. This condition is to be coordinated through the City's Solid Waste Management staff.

Mitigation Measures

No mitigation is required. However, **Mitigation Measure SW-1** would be implemented to further reduce project impacts related to solid waste.

SW-1: All Tract Map and RPD approvals shall require a waste management plan, consistent with Moorpark Municipal Code Chapter 8.36, prepared by the applicant. At a minimum, the waste management plan shall address the following:

- Require that the demolition and construction wastes be recycled or re-used to the extent technically and economically feasible.
- Require that recycled content building materials be used during construction to the extent technologically and economically feasible.
- Conform to the City's Source Reduction and Recycling Element.

Timing/Implementation: Prior to issuance of certificates of occupancy.

Enforcement/Monitoring: City of Moorpark Community Development Department

The above listed mitigation measures shall be binding on all construction and operation phases of development within the specific plan area.

3.17.4.6 Level of Significance After Mitigation

Project specific and cumulative residual impacts would be less than significant.

3.17.5 TELECOMMUNICATIONS

3.17.5.1 Existing Conditions

City of Moorpark Telecommunications

Services, including telephone and cellular phone services, cable television, and internet and broadband services in the City of Moorpark, are provided by several privately owned companies.

Broadband cable is currently made available to residential customers throughout all of Moorpark by Charter Communications (doing business as Spectrum Internet) and AT&T U-verse.

The California Public Utilities commission (CPUC) develops and implements policies for the telecommunications industry, including ensuring fair, affordable universal access to necessary services; developing clear rules of the game and regulatory tools to allow flexibility without compromising due process; removing barriers that prevent a fully competitive market; and reducing or eliminating burdensome regulation.

3.17.5.2 Thresholds of Significance

Impact UST-1 **Require or result in the relocation or construction of new or expanded telecommunication facilities, the construction or relocation of which could cause significant environmental effects.**

Less than Significant

3.17.5.3 Project Impacts

The existing telephone lines are located both east and west of the Specific Plan area and would be extended to the area during construction to serve the approved uses. All telephone service lines within the Specific Plan area shall be underground.

Currently it is not possible to provide wireless and small cell service as underground utilities. Further, as presently designed, no wireless and small cell towers are included in the Project. However, any future development would be consistent with all City requirements for siting and design.

Cable television service is available in the City. The existing cables are located east of the Specific Plan area and would be extended to the area during construction in underground cable systems to serve the approved uses.

No additional infrastructure would need to be constructed or relocated to provide telecommunications services to the Project site.

3.17.5.4 Cumulative Impacts

The CPUC provides specific policy actions to ensure that California's telecommunications needs will meet current and future needs. Therefore, the capacity of telecommunications services is expected to be able to accommodate the Specific Plan and other projects in the vicinity. Cumulative impacts to telecommunications are not considered significant.

3.17.5.5 Mitigation Program

No mitigation is required.

3.17.5.6 Level of Significance After Mitigation

Project specific and cumulative residual impacts would be less than significant.

3.18 WILDFIRE

INTRODUCTION

This section discusses the wildfire hazards and evaluates the significance of potential impacts based on thresholds defined in the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, and includes measures to mitigate potentially significant impacts.

Information in this section draws upon information provided for the Ventura County Fire Department by Dudek in the 2021 Hitch Ranch Fire Protection Plan (FPP) for the Proposed Project, included as ***Appendix 3.18*** *to this environmental impact report (EIR). The FPP evaluates and identifies the potential fire risk associated with the Proposed Project's land uses and identifies requirements for water supply, fuel modification and defensible space, access, building ignition and fire resistance, and fire protection systems, among other pertinent fire protection criteria. This assessment considers the fire risk presented by the site including the property location and its topography, geology, surrounding combustible vegetation (fuel types), climatic conditions, fire history and the proposed land use.*

3.18.1 EXISTING CONDITIONS

3.18.1.1 Regional

Wildfire is a continuous threat in Southern California and is particularly concerning in the wildland urban interface (WUI), a geographic area where urban development either abuts or intermingles with wildland or vegetative fuels. The City of Moorpark within the County of Ventura contains several miles of WUI, where established development meets open space areas and canyons within urban and suburban areas. The region's climate, severe dry periods, vegetative fuel composition, and steep and varied terrain make the region susceptible to both wildland and WUI fires. The shrub-dominated plant communities occurring throughout the region are highly flammable. Adaptations to the local dry, Mediterranean climate include specialized roots, stems, and leaves. The latter two become available fuels of importance and contribute to wildfire intensity and spread.

Weather throughout Southern California is influenced by the Pacific Ocean and is frequently under the influence of a seasonal, migratory subtropical high pressure cell known as the "Pacific High." Wet winters and dry summers with mild seasonal changes characterize the Southern California climate. This climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, easterly Santa Ana winds. Santa Ana winds bring hot, dry desert air from the east into the region during late summer and fall, which increases wildland fire hazards during these seasons. Dry vegetation, low humidity, and high air temperature can combine to produce large-scale fire events. As Santa Ana winds blow westward toward

denser development, fires driven by these winds have the potential to result in a greater risk of property damage.

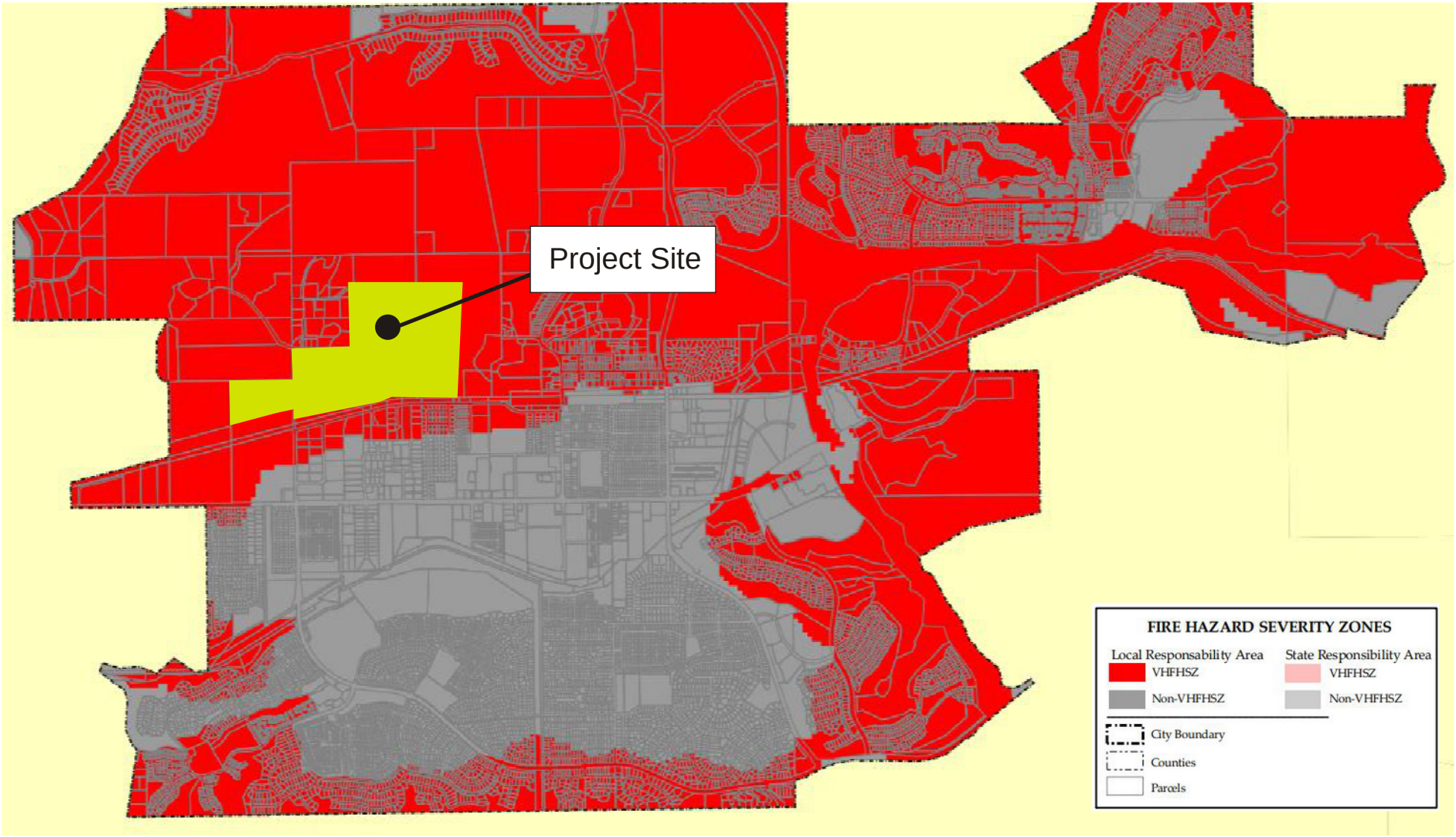
3.18.1.2 Project Site

The Project site is approximately 277.30 acres, inclusive of an approximately 23.44-acre parcel to be donated to the City of Moorpark, located in the western portion of the City of Moorpark. The Project site is currently undeveloped and is surrounded by a variety of land uses including residential, industrial, offices, agricultural, and open space lands. The site is located approximately 0.25 mile west of the Moorpark downtown area (See **Figure 2.0-1, Regional Location** and **2.0-2, Local Vicinity Map**). Local public services and facilities already exist in the general vicinity.

Fire environments are dynamic systems and include many types of environmental factors and site characteristics. Fires can occur in any environment where conditions are conducive to ignition and fire movement. Areas of naturally vegetated open space are typically comprised of conditions that may be favorable to wildfire spread. The three major components of fire environment are topography, vegetation (fuels), and climate. The state of each of these components and their interactions with each other determines the potential characteristics and behavior of a fire at any given moment. It is important to note that wildland fire may transition to urban fire if structures are receptive to ignition. Structure ignition depends on a variety of factors and can be prevented through a layered system of protective features including fire resistive landscapes directly adjacent the structure(s), application of known ignition resistive materials and methods, and suitable infrastructure for firefighting purposes. The following sections describe the existing wildland vegetation and urban fuel conditions on and adjacent to the site, which is necessary to understand the potential for fire within and around the Project site.

3.18.1.3 Fire Hazard Severity Zones

The Hitch Ranch Project site lies within an area considered a Very High Fire Hazard Severity Zone (VHFHSZ), as designated by the Ventura County Fire Department (VCFD) and California Department of Forestry and Fire Protection (CAL FIRE). The VHFHSZ designation can be attributed to a variety of factors including highly flammable, dense, drought-adapted desert chaparral vegetation, seasonal, strong winds, and a Mediterranean climate that results in vegetation drying during the months most likely to experience Santa Ana winds. **Figure 3.18-1, Hitch Ranch Fire Hazard Severity Zone Map** shows the location of the Project site relative to the VHFHSZ.



SOURCE: Dudek Fire Protection Plan; CalFire, 2019.

FIGURE **3.18-1**

IMPACT SCIENCES

Hitch Ranch Fire Hazard Severity Zone Map

3.18.1.4 Topography

Topography influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread up slope and slower spread down slope. Terrain that forms a funneling effect—such as chimneys, chutes, or saddles—on the landscape can result in especially intense fire behavior, including faster spread and higher intensity. Conversely, flat terrain tends to have little effect on fire spread, resulting in fires that are driven by vegetation and wind.

The Project site is situated within the Transverse Ranges at the southern limit of the Simi Hills, between the Oak Ridge Mountains to the north and the Las Posas Hills to the south. The site is characterized by gently rolling hills and a series of north-south trending ridges and canyons. The topography ranges from moderately steep to relatively flat, and is highly variable; elevation at the site ranges from approximately 475 to 720 feet above mean sea level. The site has been previously disturbed by agricultural operations and several fires in recent years (see Section 3.18.1.7 for historical fire information). Numerous dirt roads, concrete foundations of old farm buildings, and culverts in old agricultural ditches are still present as well as a livestock shed and goats in a fenced pen. Several ephemeral drainages convey storm water down the steep slopes of the site, but no defined beds and banks or well-developed riparian plant communities were observed.

3.18.1.5 Climate

The Project site, like much of Southern California, is influenced by the Pacific Ocean and a seasonal, migratory subtropical high pressure cell known as the "Pacific High." Wet winters and dry summers with mild seasonal changes characterize the Southern California climate. This climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, easterly Santa Ana winds. The average high temperature for the project area is approximately 74°F, with daily highs in the summer and early fall months (July–October) exceeding 95°F. Precipitation typically occurs between December and March with average rainfall of 18 inches.[1]

The prevailing wind pattern is from the west (on-shore), but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are from the west–southwest (sea) and at night winds are from the northeast (land), averaging 2 miles per hour (mph). During the summer season, the diurnal winds may average slightly higher (approximately 19 mph) than the winds during the winter season due to greater pressure gradient forces. Surface winds can also be influenced locally by topography and slope variations. The highest wind velocities are associated with downslope, canyon, and Santa Ana winds. The Hitch Ranch Project site does not include topography that would create

1 Dudek. 2020. *Hitch Ranch Fire Protection Plan*. January.

unusual weather conditions. However, the site is subject to periodic extreme fire weather conditions that occur throughout Ventura County.

Typically, the highest fire danger is produced by the high-pressure systems that occur in the Great Basin, which result in the Santa Ana winds of Southern California. Sustained wind speeds recorded during recent major fires in Ventura County exceeded 30 mph and may exceed 50 mph during extreme conditions, as was the case during the most recent wildfire. The Santa Ana wind conditions are a reversal of the prevailing southwesterly winds that usually occur on a region-wide basis during late summer and early fall. Santa Ana winds are warm winds that flow from the higher desert elevations in the north through the mountain passes and canyons. As they converge through the canyons, their velocities increase. Consequently, peak velocities are highest at the mouths of canyons and dissipate as they spread across valley floors. Santa Ana winds generally coincide with the regional drought period and the period of highest fire danger. The Project site is affected by strong winds, such as Santa Ana winds.

3.18.1.6 Vegetation Dynamics (Fuel Loads)

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading. For example, non-native grass dominated plant communities become seasonally prone to ignition and produce lower intensity, higher spread rate fires. In comparison, California sagebrush scrub can produce higher heat intensity and higher flame lengths under strong, dry wind patterns, but does not typically ignite or spread as quickly as light, flashy grass fuels.

It is important to consider the dynamic nature of vegetation communities. Fire presence and absence at varying cycles or regimes affects plant community succession. Succession of plant communities, most notably the gradual conversion of shrublands to grasslands with high-frequency fires and grasslands to shrublands with fire exclusion, is highly dependent on the fire regime. Further, biomass and associated fuel loading will increase over time if disturbance or fuel reduction efforts are not diligently implemented. It is possible to alter successional pathways for varying plant communities through manual alteration. Note: this concept is a key component in the overall establishment and maintenance of the proposed fuel modification zones (FMZs) for the Project site. The FMZs will consist of irrigated and maintained landscapes that will be subject to regular "disturbance" in the form of maintenance and will not be allowed to accumulate excessive biomass over time, which results in reduced fire ignition, spread rates, and intensity.

The majority of the site (over 54 percent, approximately 154 acres) is disturbed by active cattle grazing and covered in non-native brome grasslands, specifically to the east of Gabbert Road. Native plant communities present on site are substantially disturbed by grazing and include California sagebrush-deerweed scrub, California sagebrush scrub, cactus scrub, blue elderberry stands, and chaparral yucca scrub. Also present are disturbed areas that are actively disced, developed areas, and non-native woodland. **Table 3.18-1, Vegetation Types and Acreages** shows the vegetation communities on the Project site and the percentage that they cover.

Table 3.18-1
Vegetation Types and Acreages

Vegetation type	Acres*	% of Site
Annual brome grassland	1.35.00	0.47
Annual brome grasslands (Disturbed/Grazed)	152.45	53.54
Total Annual brome grassland	**153.79**	**54.01**
Non-native woodland	**10.65**	**3.73**
Blue Elderberry Stands	1.62	0.56
Blue Elderberry Stands (Disturbed/Grazed)	5.38	1.88
Total Blue Elderberry Stands	**7.00**	**2.46**
California sagebrush-deerweed scrub	23.85	9.20
California sagebrush-deerweed scrub (Disturbed/Grazed)	12.92	4.53
Total California sagebrush-deerweed scrub	**39.13**	**13.74**
Cactus Scrub (Disturbed/Grazed)	**1.76**	**0.62**
Chaparral yucca scrub (Disturbed/Grazed)	**0.43**	**0.15**
Developed	**1.44**	**0.51**
Disturbed/Disced	**70.53**	**24.78**
TOTAL	**284.73**	**100.00**

* Acreages include the 277.3-acre Project site and off-site improvement areas associated with the development (e.g., roadway connections) as depicted in Section 3.3 Biological Resources, Figure 3.3-2.

Source: Rincon Consultants, Inc., July 2021

3.18.1.7 Fire History

Fire History data provides valuable information regarding fire spread, fire frequency, ignition sources, and vegetation/fuel mosaics across a given landscape. One important use for this information is as a tool for pre-planning. It is advantageous to know which areas may have burned recently and therefore may provide a tactical defense position, what type of fire burned on the site, and how a fire may spread. The Fire and Resource Assessment Program (FRAP) summarizes fire perimeter data dating to the late 1800s,

but is incomplete due to the fact that it only includes fires over 10 acres in size and has incomplete perimeter data, especially for the first half of the 20th century. However, the data does provide a summary of recorded fires and can be used to show whether large fires have occurred in the project area.

According to available data from the CAL FIRE in the FRAP database[2], twenty-nine (29) fires have burned in the vicinity of the Project site since the beginning of the historical fire data record, including the most recent Easy Fire which burned approximately 1,700 acres in October 2019. Recorded wildfires within 5 miles range from 11 acres (2018) to 115,537 acres (1970) and the average fire size is 12,472 acres (not including the 2003 Simi Fire or fires smaller than 10 acres). The Easy Fire (approximately 1,700 acres) is the most recent fire, which occurred approximately five miles east of the Project site (not included in FRAP data based because the fire occurred in October 2019). VCFD may have data regarding smaller fires (less than 10 acres) that have occurred on the site that have not been included herein. Two fires have burned on the Project site, including the 2003 Simi Fire (107,570 acres) and the 2006 Shekell Fire (13,618 acres). **Table 3.18-2, Fire History within Five Miles of the Hitch Ranch Project Site,** and **Figure 3.18-2, Fire History Map,** summarizes the fire history for the area.

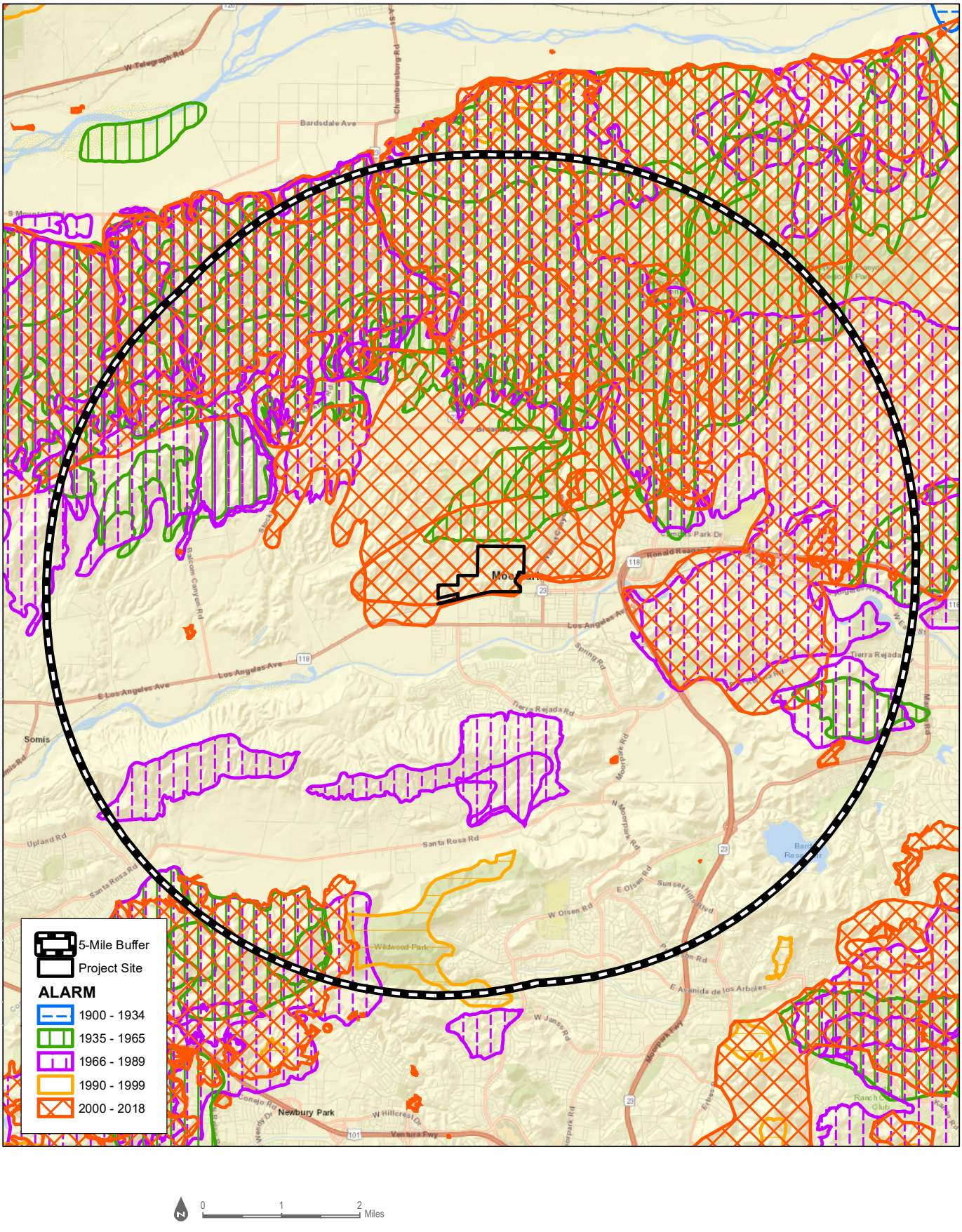
Table 3.18-2
Fire History within Five Miles of the Hitch Ranch Project Site

Fire Year[1]	Fire Name	Interval (years)	Total Area Burned (acres)
1940	Camarillo Rifle Range	N/A	1,411
1943	Jones Canyon	3	522
1944	Long Canyon	1	462
1946	Wiley Canyon	2	21,266
1953	Shields Lease	7	11,775
1956	Bl Brush	3	1,595
1957	Simi Valley Ranch	1	468
1958	Santa Rosa	1	1,138
1958	Calumet Canyon	0	17,214
1958	Brea Canyon	0	1,244
1967	Sence Ranch	9	18,354
1970	Clampitt Fire	3	115,537
1973	Santa Rosa	3	424
1976	Arroyo	3	206
1980	Hill Canyon	4	11,975
1984	Grimes Fire	4	11,305
1985	Peach Hill	1	1,992
1987	Tierra	2	759
1995	Wildwood 1	8	799

2 Based on polygon GIS data from CAL FIRE's FRAP, which includes data from CAL FIRE, USDA Forest Service Region 5, BLM, NPS, Contract Counties and other agencies. The data set is a comprehensive fire perimeter GIS layer for public and private lands throughout the state and covers fires 10 acres and greater between 1878–2018.

Fire Year[1]	Fire Name	Interval (years)	Total Area Burned (acres)
2001	Walnut Incident	6	36
2003	Simi Fire	2	107,570
2006	Shekell	3	13,618
2009	Guiberson	3	17,527
2011	Collins	2	60
2013	Happy Camp	2	45
2015	Princeton	2	44
2018	Collins	3	11
2018	Olsen	0	28
2018	Hill	0	4,310
2019	Easy	0	1,700

[1] *CAL FIRE FRAP 2019, Impact Sciences, 2021.*



SOURCE: Dudek, BASEMAP-ESRI, FIRE-CALFIRE, 2018

FIGURE **3.18-2**

IMPACT SCIENCES

Fire History Map

1318.003•05/2020

3.18.1.8 Emergency Response and Fire Protection

The Ventura County Fire Protection District (also known as Ventura County Fire Department) provides contract fire protection services to the City, including wildfire protection and suppression.[3]

The City's Emergency Management Division is responsible for the operation of the City's Emergency Operations Center (EOC). The EOC is the focal point for coordination of the City's emergency planning, training, response, and recovery efforts for emergencies and major disasters. The EOC prepares for emergencies and major disasters such as fires, floods, earthquakes, and acts of terrorism.

In addition, the City participates in the Ventura County Multi-Hazard Mitigation Plan, which was last revised in 2015. The Plan assesses the risks posed by natural and human-caused hazards and establishes mitigation strategies for reducing these risks. Hazards addressed include flooding, tsunamis, earthquakes, wildfires, and agricultural biological hazards. Emergency response actions could also be triggered by a hazardous materials incident; water or air pollution; a major transportation accident; water, gas, or energy shortage; a health epidemic; a nuclear accident; or terrorism.[4]

The Project site is located within the jurisdiction of the VCFD. Therefore, the VCFD would provide initial response to the Project site for fire protection and emergency medical services. The VCFD jurisdictional response area encompasses approximately 848 square miles including the cities of Ojai, Port Hueneme, Moorpark, Camarillo, Santa Paula, Simi Valley, and Thousand Oaks, and a population of more than 480,000 people in the unincorporated areas of Ventura County. The VCFD currently operates 33 Fire Stations and consists of a staff of 395 full-time safety (including safety Chief Officers) and 158 full-time non-safety employees.[5]

In addition, the City participates in automatic aid agreements and dropped boundary agreements on first alarm or greater emergency calls with surrounding communities, ensuring that the closest unit will be dispatched, regardless of jurisdictional boundaries. Further, the County has Mutual Aid agreements that allow the Cities to request additional resources from county, state, and federal agencies to meet the needs of a given incident. The VCFD is responsible for the preparation, maintenance, and execution of Fire Preparedness and Management Plans. The County's Emergency Operations Center trains County staff and

3 City of Moorpark. 2001. 2000-2005 Safety Element, City of Moorpark General Plan. Accessed May 2020. https://www.moorparkca.gov/DocumentCenter/View/173/Safety-Element?bidId=

4 County of Ventura. 2015. Ventura County Multi-Hazard Mitigation Plan. http://www.vcfloodinfo.com/pdf/2015%20Ventura%20County%20Multi-Hazard%20Mitigation%20Plan%20and%20Appendices.pdf

5 VCFD. 2019. Ventura County Fire Department. https://vcfd.org/about-vcfd/overview

outside agencies in their roles and responsibilities and coordinates operations in the event of an emergency or major event or incident. The VCFD is also part of the State of California Master Mutual Aid Agreements.

3.18.1.9 Emergency Service Level

The VCFD estimates approximately 44,742 total annual calls (VCFD's 2017 Annual Report) and Ventura County's population of approximately 480,000 (VCFD 2019). The per capita call volume is roughly 0.09 for the County of Ventura. Based on the proposed development plans, the project's estimated 2,333 residents (assumes an average of 3.09 occupants per residence for this type of community (SANDAG 2019) would generate roughly 210 calls per year, most of which are expected to be medical-related calls, consistent with typical emergency call statistics.

Service level requirements are not expected to be significantly impacted with the increase of approximately 210 calls per year or 0.58 calls per day for a station (VCFD Station 42) that currently responds to roughly 3 calls per day (1,130 calls[6] in 2017) in its primary service area. Therefore, the project is not expected to cause a decline in VCFD's emergency response times. Additional response, rounding out the effective firefighting force (the manpower needed to effectively fight a structure fire and/or respond to serious medical emergency) would be provided by Stations 40 and 57. Further information regarding Fire Protection Services can be found in **Section 3.13.2, Fire Protection**.

3.18.2 REGULATORY FRAMEWORK

3.18.2.1 Federal Laws and Regulations

Robert T. Stafford Disaster Relief and Emergency Assistance Act, as Amended, and Related Authorities

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 100-707), signed into law on November 23, 1988, amended the Disaster Relief Act of 1974 (Public Law 93-288). The Stafford Act constitutes the statutory authority for most federal disaster response activities especially as they pertain to FEMA and FEMA programs.

Disaster Mitigation Act (DMA) of 2000

DMA 2000 (Public Law 106-390) provides the legal basis for FEMA mitigation planning requirements for state, local and Indian Tribal governments as a condition of mitigation grant assistance. DMA 2000

6 Data derived from VCFD's 2017 annual report which states that there were 2,259 calls within the Moorpark service area. There are two stations within the Moorpark service area, so a rough estimate of 1,130 calls in 2017 was used for Station 42.

amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions and replacing them with a new set of requirements that emphasize the need for state, local, and Indian Tribal entities to closely coordinate mitigation planning and implementation efforts. The requirement for a state mitigation plan is continued as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans. DMA 2000 also established a new requirement for local mitigation plans and authorized up to 7 percent of HMGP funds available to a state for development of state, local, and Indian Tribal mitigation plans.

Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a Presidential declaration of a major disaster or emergency.

Presidential Policy Directive 8: National Preparedness

The National Response Framework (NRF) is an essential component of the National Preparedness System mandated in Presidential Policy Directive 8: National Preparedness (PPD-8). PPD-8 is aimed at strengthening the security and resilience of the United States through systematic preparation for the threats that pose the greatest risk to the security of the Nation. PPD-8 defines five mission areas— Prevention, Protection, Mitigation, Response, and Recovery—and mandates the development of a series of policy and planning documents to explain and guide the Nation's collective approach to ensuring and enhancing national preparedness. The NRF presents the guiding principles that enable all response partners to prepare for and provide a unified national response to disasters and emergencies. It establishes a comprehensive, national, all-hazards approach to domestic incident response. The National Response Plan was replaced by the NRF effective March 22, 2008 and updated most recently in June 2016.

The NRF defines the principles, roles, and structures that organize response protocols as a nation. The NRF:

- Describes how communities, tribes, states, the federal government, private-sectors, and nongovernmental partners work together to coordinate national response;

- Describes specific authorities and best practices for managing incidents; and
- Builds upon the National Incident Management System (NIMS), which provides a consistent template for managing incidents.

Federal Emergency Management Agency (FEMA) Regulation

FEMA's mission is to reduce the loss of life and property and protect communities nationwide from all hazards, including natural disasters, acts of terrorism, and other man-made disasters. FEMA leads and supports the nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery and mitigation.

In March 2003, the Federal Emergency Management Agency (FEMA) became a department of the U.S. Department of Homeland Security (DHS), pursuant to 44 CFR, Chapter 1 Part 201. The primary mission of FEMA is to reduce the loss of life and property and protect the nation from all hazards, including natural disasters, acts of terrorism, and other human-made disasters, by leading and supporting the nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation. The project is under the jurisdiction of FEMA Region 9, which covers Arizona, California, Hawaii, Nevada, Guam, American Samoa, Commonwealth of Northern Mariana Islands, Republic of Marshall Islands, Federated State of Micronesia, and more than 150 sovereign tribal entities. In Southern California, FEMA Region 9 specifically plans for hazards such as major earthquakes and wildfires. A catastrophic earthquake could result in 1,800 fatalities, 9 million people displaced, and $200 billion in losses.

National Fire Plan

The Department of the Interior's National Fire Plan is intended to ensure an appropriate federal response to severe wildland fires, reduce fire impacts to rural communities, and ensure sufficient firefighting capacity in the future. The plan addresses five key points: Firefighting, Rehabilitation, Hazardous Fuels Reduction, Community Assistance, and Accountability. The Rural Fire Assistance program is funded to enhance the fire protection capabilities of rural fire districts and safe and effective fire suppression in the wildland/urban interface. The program promotes close coordination among local, state, tribal, and federal firefighting resources by conducting training, equipment purchase, and prevention activities on a cost-shared basis.

National Fire Protection Association (NFPA) Codes, Standards, Practices, and Guides

National Fire Protection Association (NFPA) codes, standards, recommended practices, and guides are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. NFPA standards are recommended guidelines and nationally accepted good practices in fire protection, but are not laws or codes unless adopted as such or referenced as such by the California Fire Code or the local fire agency.

- NFPA 10, Standard for Portable Fire Extinguishers (2018): A long-standing standard, which specifies the types, sizes, rating, and locations for portable fire extinguishers. It also provides information on how to calculate the number and size of portable fire extinguishers needed.

- NFPA 11, Standard for Low-, Medium-, and High-Expansion Foam (2016): NFPA 11 is a longstanding standard, which provides recommendations for design and installation of firefighting foam systems and portable equipment. It also provides recommendations regarding calculating the amount of foam concentrate and solution needed on a flammable or combustible liquid fire.

- NFPA 13, Standard for Installation of Sprinkler Systems (2019): NFPA 13 is the standard for design and installation of automatic fire sprinkler systems in a building. It provides the requirements for the type of system needed in a particular occupancy, water supply, sprinkler head flow and pressures, the locations of sprinkler heads, and installation of the system. This standard is referenced by the California Fire Code.

- NFPA 22, Standard for Water Tanks for Private Fire Protection (2018): Provides recommendations for the design, construction, installation, and maintenance of tanks and accessory equipment that supply water for private fire protection.

- NFPA 30, Flammable and Combustible Liquids Code (2018): This standard provides safeguards to reduce the hazards associated with the storage, use, and handling of flammable and combustible liquids. It provides detailed information regarding tank storage, spacing, dispensing of liquids, portable containers, and other related operations. NFPA 30 is referenced by the California Fire Code.

- NFPA 70, National Electrical Code (2017): NFPA 70 is the standard for the design, installation, and inspection of electrical hazards. It includes recommendations for various types of occupancies and also provides recommendations and criteria for the location and installation of "explosion proof" electrical systems.

- NFPA 72, National Fire Alarm and Signaling Code (2019): NFPA 72 is the standard for the design, installation, and operation of fire alarm systems in various occupancies. This standard is used by fire alarm system designers when designing and installing a system. It is utilized also by fire agencies when reviewing plans for new systems.

- NFPA 497, Classification of Flammable Liquids, Gases, or Vapors, and of Hazardous Locations for Electrical Installations in Chemical Process Areas (2017): NFPA 497 is the standard, which is utilized along with NFPA 70 to determine flammable gas, flammable liquid, and combustible liquid hazards and to recommend the areas that require explosion-proof electrical systems. It also sets forth the extent of the classified areas. Although the title says chemical process areas, it is used as a standard for explosion-proof electrical as it defines various risks and contains numerous diagrams to help the electrical system designer.

Federal Wildland Fire Management Policy

The Federal Wildland Fire Management Policy was developed in 1995, updated in 2001, and again in 2009 by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions. An important component of the Federal Wildland Fire Management Policy is the acknowledgement of the essential role of fire in maintaining natural ecosystems. The Federal Wildland Fire Management Policy and its implementation are founded on the following guiding principles, found in the Guidance for Implementation of Federal Wildland Fire Management Policy.[7]

- Firefighter and public safety is the first priority in every fire management activity.

- The role of wildland fire as an essential ecological process and natural change agent will be incorporated into the planning process.

- Fire management plans, programs, and activities support land and resource management plans and their implementation.

- Sound risk management is a foundation for all fire management activities.

- Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives.

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7 National Wildfire Coordinating Group. 2009. *Guidance for Implementation of Federal Wildland Fire Management Policy*. February 13, 2009.

- Fire management plans and activities are based upon the best available science.
- Fire management plans and activities incorporate public health and environmental quality considerations.
- Federal, state, tribal, local, interagency, and international coordination and cooperation are essential.
- Standardization of policies and procedures among federal agencies is an ongoing objective.

International Fire Code

Created by the International Code Council, the International Fire Code (IFC) addresses a wide array of conditions hazardous to life and property, including fire, explosions, and hazardous materials handling or usage (although not a federal regulation, but rather the product of the International Code Council). The IFC places an emphasis on prescriptive and performance-based approaches to fire prevention and fire protection systems. Updated every 3 years, the IFC uses a hazards classification system to determine the appropriate measures to be incorporated to protect life and property (often times these measures include construction standards and specialized equipment). The IFC uses a permit system (based on hazard classification) to ensure that required measures are instituted (International Code Council 2017).

International Wildland–Urban Interface Code

The International Wildland–Urban Interface Code is published by the International Code and is a model code addressing wildfire issues.

3.18.2.2 State

California Department of Forestry and Fire Protection (Cal Fire)

Cal Fire protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and watershed values providing social, economic, and environmental benefits to rural and urban citizens. Cal Fire's firefighters, fire engines, and aircraft respond to an average of more than 5,600 wildland fires each year. The Office of the State Fire Marshal supports Cal Fire's mission by focusing on fire prevention. It provides support through a wide variety of fire safety responsibilities including by regulating buildings in which people live, congregate, or are confined; by controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire; by providing statewide direction for fire prevention in wildland areas; by regulating hazardous liquid pipelines; by reviewing regulations and building standards; and by providing training and education in fire protection methods and responsibilities.

California Health and Services Code

Fire regulations for California are established in Sections 13000 et seq. of the California Health and Services Code and include regulations for structural standards (similar to those identified in the California Building Code); fire protection and public notification systems; fire protection devices such as extinguishers and smoke alarms; standards for high-rise structures and childcare facilities; and fire suppression training. The State Fire Marshal is responsible for enforcement of these established regulations and building standards for all state-owned buildings, state-occupied buildings, and state institutions within California.

California Fire Plan

The Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and the California Department of Forestry and Fire Protection. By placing the emphasis on what needs to be done long before a fire starts, the Fire Plan looks to reduce firefighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health. The current plan was finalized in the summer of 2018.

California Public Resources Code

Fire Hazard Severity Zones – Public Resources Code Sections 4201–4204 Public Resources Code (PRC) Sections 4201–4204 and Government Code Sections 51175–89 direct Cal Fire to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as fire hazard severity zones (FHSZ), define the application of various mitigation strategies to reduce risk associated with wildland fires.

California Public Resource Code Section 4290 requires minimum fire safety standards related to defensible space that are applicable to residential, commercial, and industrial building construction in State Responsibility Area lands and lands classified and designated as Very High FHSZs. These regulations include road standards for fire apparatus access, standards for signs identifying roads and buildings, fuel breaks and green belts, and minimum water supply requirements. It should be noted that these regulations do not supersede local regulations which equal or exceed minimum regulations required by the state.

Public Resource Code Section 4291 requires a reduction of fire hazards around buildings located adjacent to a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands or land that is covered in flammable material. It is required to maintain a minimum 100 feet of vegetation management around all buildings and is the primary mechanism for conducting fire prevention activities on private property within CAL FIRE jurisdiction. Further, PRC 4291 requires the removal of dead or dying vegetative materials from the roof of a structure, and trees and shrubs must be trimmed from within 10 feet of the

outlet of a chimney or stovepipe. Exemptions may apply for buildings with an exterior constructed entirely of nonflammable materials.

California Fire Code

The 2016 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

California Building Code

Part 2 of Title 24 contains the California Building Code (CBC). Chapter 7A of the CBC regulates to building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a wildland–urban interface fire area. The purpose of this Chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any FHSZ within a State Responsibility Area or a wildland–urban interface fire area to resist the intrusion of flames or burning embers projected by a vegetation fire, and to contribute to a systematic reduction in conflagration losses. New buildings located in such areas must comply with the ignition-resistant construction standards outlined in CBC Chapter 7A.

The VHFHSZ designation on the Project site would require buildings to implement ignition-resistive construction and provide up to 200-feet of defensible space (treated, maintained vegetation) between structures and open space areas. Since the entire Proposed Project site is classified as VHFHSZ, the requirements of Chapter 7A of the 2019 California Building Code (CBC), or then current edition, would apply to all project buildings.

Title 14 Natural Resources

Title 14, Division 1.5, Chapter 7, Subchapter 3, Fire Hazard, also sets forth requirements for defensible space if the distances specified above cannot be met. For example, options that have similar practical effects include noncombustible block walls or fences, 5 feet of noncombustible material horizontally around the structure, installing hardscape landscaping or reducing exposed windows on the side of the structure with

a less-than-30-foot setback, or additional structure hardening such as those required in the California Building Code (CBC), California Code of Regulations Title 24, Part 2, Chapter 7A.

Senate Bill 1241

In 2012, Senate Bill 1241 added Section 66474.02 to Title 7 Division 2 of the California Government Code, commonly known as the Subdivision Map Act. The statute prohibits subdivision of parcels designated very high fire hazard, or that are in a State Responsibility Area, unless certain findings are made prior to approval of the tentative map. The statute requires that a city or county planning commission make three new findings regarding fire hazard safety before approving a subdivision proposal. The three findings are, in brief: (1) the design and location of the subdivision and its lots are consistent with defensible space regulations found in PRC Section 4290-91, (2) structural fire protection services will be available for the subdivision through a publicly funded entity, and (3) ingress and egress road standards for fire equipment are met per any applicable local ordinance and PRC Section 4290.

California Disaster Assistance Act (CDAA)

The California Disaster Assistance Act (CDAA; CCR Title 19, Chapter 6) authorizes the Director of the California Governor's Office of Emergency Services (Cal OES) to administer a disaster assistance program that provides financial assistance from the state for costs incurred by local governments as a result of a disaster event. Funding for the repair, restoration, or replacement of public real property damaged or destroyed by a disaster is made available when the Director concurs with a local emergency proclamation requesting state disaster assistance.

California Emergency Services Act (AB 38)

AB 38 gave Cal EMA responsibility for overseeing and coordinating emergency preparedness, response, recovery, and homeland security activities in the state. The Governor's Office of Emergency Services (OES) mission statement is "Protect lives and property, build capabilities, and support our communities for a resilient California." OES goals include:

- **Goal 1:** Anticipate and enhance prevention and detection capabilities to protect our State from all hazards and threats.
- **Goal 2:** Strengthen California's ability to plan, prepare for, and provide resources to mitigate the impacts of disasters, emergencies, crimes, and terrorist events.
- **Goal 3:** Effectively respond to and recover from both human-caused and natural disasters.

- **Goal 4:** Enhance the administration and delivery of all state and federal funding, and maintain fiscal and program integrity.
- **Goal 5:** Develop a united and innovative workforce that is trained, experienced, knowledgeable, and ready to adapt and respond.
- **Goal 6:** Strengthen capabilities in public safety communication services and technology enhancements.

2018 State Hazard Mitigation Plan (SHMP)

Approved by FEMA in September 2018, as an Enhanced State Mitigation Plan, the 2018 SHMP update continues to build upon California's commitment to reduce or eliminate the impacts of disasters caused by natural, technological, accidental, and adversarial/human-caused hazards, and further identifies and documents progress made in hazard mitigation efforts, new or revised state and federal statutes and regulations, and emerging hazard conditions and risks that affect the State of California. Resilience depends on the whole community and is a shared responsibility for all levels of government, private and nonprofit sectors, and individuals.

Utility Wildfire Mitigation Plans (SB 901)

After record-breaking drought in California from 2011 to 2017, perfect wildfire conditions allowed faulty PG&E utility lines to spark devastating fires that would scorch over 4,000 square miles of land across the state. In response to the deadly season, the California Legislature developed SB 901 as the "centerpiece measure" in its attempt to rectify damages from the 2017 wildfires and prevent future wildfire disasters. SB 901 mandates all electric utilities to prepare and submit wildfire mitigation plans that describe the utilities' plan to prevent, combat, and respond to wildfires affecting their service territories. The California Public Utilities Commission (CPUC) will review and refine the plans before implementing and enforcing them. In the short-term, SB 901 allows PG&E to lean on its customers in paying for billions of dollars in fire-related damages. It also provides over $1 billion for vegetation management over five years.[8]

Forestry and Fire Prevention: Joint Prescribed Burning Operation (AB 2551)

Approved in 2018, AB 2551 authorizes CAL Fire to collaborate with private landowners on controlled burns to reduce wildfire fuel. Mismanagement of the forests can lead to a build-up of forest underbrush that serves as a perfect fuel for wildfires. By allowing small, non-industrial landowners to choose to individually

8 California Public Utilities Commission (CPUC). *Utility Wildfire Mitigation Plans* (*SB 901)*. Available online at: http://cpuc.ca.gov/SB901/, accessed May 21, 2019.

implement various fire prevention programs, such as prescribed burns, AB 2551 promotes good, local forest management in the state.

Price Gouging: State of Emergency (AB 1919)

AB 1919 was one of the bills introduced to deal with insurance issues relating to, or originating from, wildfire. The bill prohibits landlords from increasing rental housing rates by more than 10 percent in the wake of a designated emergency. For renters affected by wildfire, a substantial increase in housing rates could be devastating and has the potential to result in homelessness. By stabilizing rental rates, AB 1919 protects current and future renters from being charged unfair prices in the wake of a disaster.

Forest Resources: Fire Prevention Grant Fees (SB 1079)

SB 1079 builds from existing laws establishing grants to private entities, Native American tribes, and public agencies to assist in the implementation and administration of projects and programs relating to improving forest health and reducing GHG emissions. SB 1079 authorizes CAL Fire to make advance payments to grantees (such as fire safe councils, Native American tribe, or special district), which receive funds from the healthy forest and local fire-prevention grant programs.

California Strategic Fire Plan

The 2018 Strategic Fire Plan for California reflects CAL FIRE's focus on (1) fire prevention and suppression activities to protect lives, property, and ecosystem services, and (2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. The Strategic Fire Plan for California provides a vision for a natural environment that is more fire resilient; buildings and infrastructure that are more fire resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships.[9] Plan goals include the following:

1. Identify and evaluate wildland fire hazards and recognize life, property and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the collaborative development and sharing of all analyses and data collection across all ownerships for consistency in type and kind.

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9 CAL FIRE (California Department of Forestry and Fire Protection). 2018. 2018 *Strategic Fire Plan for California*. August 22, 2018.

2. Promote and support local land use planning processes as they relate to: (a) protection of life, property, and natural resources from risks associated with wildland fire, and (b) individual landowner objectives and responsibilities.

3. Support and participate in the collaborative development and implementation of local, county and regional plans that address fire protection and landowner objectives.

4. Increase fire prevention awareness, knowledge and actions implemented by individuals and communities to reduce human loss, property damage and impacts to natural resources from wildland fires.

5. Integrate fire and fuels management practices with landowner/land manager priorities across jurisdictions.

6. Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies.

7. Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.

8. Implement post-fire assessments and programs for the protection of life, property, and natural resource recovery.

Mutual Aid Agreements

The California Disaster and Civil Defense Master Mutual Aid Agreement, as provided by the California Emergency Services Act, provides statewide mutual aid between and among local jurisdictions and the state. The statewide mutual aid system exists to ensure that adequate resources, facilities, and other supports are provided to jurisdictions whenever resources prove to be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities but can give and receive help whenever needed. The VCFD participates in these mutual aid, automatic aid and other agreements with surrounding fire departments. In some instances, the closest available resource may come from another fire department.

3.18.2.2 Local

The Proposed Project would be subject to state and federal agency planning documents described above, as well as the regional or local planning documents such as the Ventura County General Plan, City of Moorpark General Plan, the Ventura County Municipal Code, or the City of Moorpark Municipal Code. In

addition to the relevant plans, policies, and ordinances identified below, Section 3.13, Public Services, of this EIR provides information on the City's fire protection services.

County of Ventura General Plan

As indicated above, implementation of the fire hazard reduction goals and policies set forth in the Ventura County General Plan is Policy 6.1 of the Moorpark General Plan Safety Element. Therefore, the following goals and policies from the Ventura County General Plan Hazards Element have been included. The Hazards Element of the Ventura County General Plan contains a Fire Hazards chapter. The Fire Hazards chapter focuses on the rural or wildland areas of the County. The goals and policies that apply to fire hazards and may be applicable the project are as follows.

Goals

1. Minimize the risk of loss of life injury, damage to structures, and economic and social dislocations resulting from fire hazards.

2. Ensure that development in high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards.

Policies

1. All applicants for discretionary permits shall be required, as a condition of approval, to provide adequate water supply and access for fire protection and evacuation purposes.

2. All discretionary permits in fire hazard areas shall be conditioned to include fire-resistant vegetation, cleared firebreaks, or a long-term comprehensive fuel management program as a condition of approval. Fire hazard reduction measures shall be incorporated into the design of any project in a fire hazard area.

3. New residential subdivisions shall provide not less than two means of access for emergency vehicles and resident evacuation. A deviation from this policy is only allowed when the proposed road conforms to the County Road Standards and when the County Fire Chief approves the proposed road.

4. All applicants for subdivisions, multi-unit residential complexes, and commercial and industrial complexes shall be required to obtain, prior to permit approval, certification from the Fire Protection District that adequate fire protection is available, or will be available prior to occupancy.

Ventura County Municipal Code

Per Section 5111, Ventura County Fire Code, the Ventura County Code of Ordinances adopts by reference the 2019 California Fire Code, portions of the 2018 International Fire Code, and portions of Title 19 of the California Code of Regulations, with additions, deletions, and amendments. A county, city, or county and city may establish more restrictive building standards reasonably necessary because of local, climatic, geological, or topographical conditions.

Ventura County Multi-Hazard Mitigation Plan

The City of Moorpark is a participating jurisdiction in the Ventura County Multi-Hazard Mitigation Plan, which assesses the risks posed by natural and human-caused hazards and establishes a mitigation strategy for reducing these risks. Hazards addressed include flooding, tsunamis, earthquakes, wildfires, and agricultural biological hazards. Emergency response actions could also be triggered by a hazardous materials incident; water or air pollution; a major transportation accident; water, gas, or energy shortage; a health epidemic; a nuclear accident; or terrorism. Section 4 of the Plan identifies potential hazards faced by the County, including wildfires and post-fire debris flow.

Ventura County Fire Department

The Ventura County Fire Department is responsible for the protection of lives and property within its area of jurisdiction, which includes the City of Moorpark. The Department sets fire prevention standards and guidelines, such as Fire Hazard Reduction Program.

City of Moorpark General Plan

The Safety Element addresses safety issues arising from both naturally occurring and human-caused conditions, and presents goals and policies focused on reducing the potential risk of death, injuries, property damage, and economic and social dislocation resulting from hazards. Fire hazards are included as a public safety and service issue relevant to the City. The following goals and policies related to fire hazards may be applicable to the project.

Goal 6.0: Reduce the risk to the community from hazards related to wildfires and structural fires.

Policy 6.1: Continue to implement the fire hazard reduction goals and policies set forth in the Ventura County General Plan.

Policy 6.2: Develop education and mitigation strategies that focus on enhanced hazards in the months of August, September and October, when dry vegetation and Santa Ana winds coexist.

Policy 6.3: Continue to require noncombustible roofing materials for new and replacement roofing.

Policy 6.4: Continue a public education through the County Fire Protection District's Community Education/Public Information Division to inform residents as to how they can help reduce fire hazards.

City of Moorpark Municipal Code

Section 15.08.060 of the Moorpark Municipal Code adopts Chapter 36 of the California Building Code, which addresses fire hazard zone requirements. Certain locations within the incorporated areas of the City of Moorpark shall be classified as High Fire Hazard by the VCFPD. The High Fire Hazard Area is defined as any area within 500 feet of uncultivated brush, grass, or forest-covered land wherein an authorized representative of said district determines that a potential fire hazard exists due to the presence of such flammable growth. Minimum construction building requirements in the High Fire Hazard Areas are outlined within Section 15.08.060.

3.18.3 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *State CEQA Guidelines* (Environmental Checklist Form), a project located in or near state responsibility areas or lands classified as very high fire hazard severity zones could have a significant impact when it would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

3.18.4 ENVIRONMENTAL IMPACTS

Impact WIL-1 Substantially impair an adopted emergency response plan or emergency evacuation plan.

Less than Significant Impact

The Proposed Project would result in the development of a currently undeveloped area, including the development of site access. The Project site would be accessible from public roadways and access into the site would be provided via four entrances for vehicles and pedestrians.

The City of Moorpark does not currently have any specifically designated emergency evacuation routes.[10] However, the proposed circulation improvements to be implemented under the Hitch Ranch Specific Plan would provide additional access for potential movement of emergency equipment for locations north, east and west of the Project site. The proposed circulation improvements would provide alternative east/west access via the Casey Road, High Street, and "A" Street extensions, and ultimately via the four-lane arterial North Hills Parkway proposed through the central portion of the Project site once it has been constructed. Implementation of the Proposed Project would increase emergency access to the Project site and nearby uses.

The project would be required to comply with the County's development review process, including review for compliance with the Ventura County Fire Apparatus Access Code - Ordinance 29 as well as compliance with applicable emergency access standards that would facilitate emergency vehicle access during project construction and operation. Additionally, an adequate water supply and an approved paved access roadway shall be installed prior to any combustibles on site.

The Project Applicant would be required to design, construct, and maintain structures, roadways, and facilities to comply with applicable local, regional, state, and federal requirements related to emergency access. Drive aisles, turning radii, and all access points would be designed with adequate emergency access. The project would be required to provide fire apparatus turnarounds on all dead-end fire apparatus access roadways over 150 feet in length, although the Fire Code Official is authorized to increase the length of a dead-end fire apparatus access roadway to a length of 250 feet, and provide a 40-foot horizontal turning

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10 Three eastern Ventura County's cities, Thousand Oaks, Simi Valley and Moorpark, have begun work on developing a joint regional evacuation plan for natural disasters such as wildfires and earthquakes. The plan will include the creation and implementation of a regional evacuation plan and procedures, including training for city and partner agency staff. The partner agencies are the Ventura County Sheriff's Office, which authorizes evacuations, and the Ventura County Fire Department. More information available on the Ventura County Star's website online at: https://www.vcstar.com/story/news/local/2021/08/18/evacuation-plan-natural-disasters-gets-boost-east-ventura-county-cities/8148908002/, published August 18, 2021.

radius of a fire apparatus access road, measured at the center line of the access road. All access roadways designed for one-way traffic shall have an unobstructed width of not less than 20 feet; all access roadways designed for two-way traffic shall have an unobstructed width of not less than 24 feet. Fire access roadways designed to allow parking shall provide a minimum clear width of not less than 32 feet for parking on one side and a clear width of not less than 36 feet for parking on both sides. All fire access roadways would have a vertical clearance of not less than 13 feet 6-inches for the full road width to allow access for fire apparatus. The proposed site plan is subject to approval by the County and the VCFD. Further, the project would be required to provide walking access to the rear of buildings, and ladder access for any windows facing the rear of the buildings.

The City of Moorpark, the County of Ventura, and the VCFD will review proposed modifications to existing roadways to ensure that adequate emergency access or emergency response would be maintained. Additionally, emergency response procedures would be coordinated through the County in coordination with the police and fire departments. Adherence to these requirements would ensure that that the project would not result in inadequate emergency access. No mitigation is required, and impacts would be less than significant.

Impact WIL-2 **Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.**

Less than Significant Impact with Mitigation

The Project could result in an impact related to exacerbating wildfire risk and exposing project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of a wildfire if it would increase the risk of a wildfire occurring and the climatic, topographic, vegetation, weather conditions, and other factors that aid in increasing the severity of such an occurrence.

Construction

Project construction would introduce potential ignition sources to the Project site, including the use of heavy machinery and the potential for sparks during welding activities or other hot work. However, the Project would be required to comply with City, State and VCFD requirements for construction activities in hazardous fire areas, including fire safety practices, to reduce the possibility of fires during construction activities. Further, the project would be subject to additional requirements, as required by VCFD, such as limiting or ceasing construction work during high-wind weather events. Additionally, as outlined in **Mitigation Measure WF-1**, vegetation management requirements would be implemented at the start of and would continue throughout all phases of construction, and combustible materials would not be

brought on site until site improvements (e.g., utilities, access roads, fire hydrants, fuel modification zones) have been implemented and approved by VCFD. Additionally, all new permanent power lines would be undergrounded for fire safety purposes. The pre-construction requirements outlined in **Mitigation Measure WF-1** would reduce the risk of wildfire ignition and spread on the Project site during construction activities. Vegetation management would also reduce the risk of wildfire spreading from within the active construction areas to offside fuel beds. Provided site improvements and vegetation management requirements are appropriately implemented and approved by VCFD, construction activities are not anticipated to exacerbate wildfire risk such that project workers would be exposed to the uncontrolled spread of a wildfire or pollutant concentrations from a wildfire. Therefore, with implementation of **Mitigation Measure WF-1**, construction impacts would be less than significant.

Operation

The project includes the development of approximately 755 residential dwelling units, open space and recreational uses on approximately 277.30 acres in an area considered a VHFHSZ (see **Figure 3.18-1**). The Project site currently includes a variety of vegetation that could serve as potential fuel sources. Existing potential ignition sources near the Project site include surrounding roadways and vehicles, the Union Pacific Railroad right of way (ROW), off-site commercial areas, off-site residential neighborhoods, and arson related ignitions. Development of the project would introduce new potential sources of ignition to the Project site, including increased human activity on the Project site and additional vehicles traveling on internal and external roads. Due to the project's location in a VHFHSZ, the project would be required to design, construct, and maintain structures, roadways, and facilities in compliance with applicable local, regional, state, and federal requirements related to fire safety, emergency access, and evacuation, as well as building materials, setbacks, and defensible space requirements for development in fire hazard areas. The local, state, and federal rules, regulations, and policies set forth minimum standards for development strategies, building materials, and systems and fire prevention strategies for development in the wildland-urban interface and fire hazard areas to reduce the risk of wildfire damage and losses.

The FPP prepared for the project (included as Appendix 3.18) analyzes the wildland fire risk in the vicinity of the Project site and determined that wildfires may occur in wildland or naturally vegetated areas north of the Project site and in areas off-site to the west, east, and northeast. The closest off-site fuels that form large fuel beds are located north of the site. Further, as shown in **Figure 3.18-2,** multiple wildfires have burned within a 5-mile radius of the Project site, and two recent wildfires have burned onto the Project site (2005 Shekell Fire and 2003 Simi Fire). As part of the FPP, fire behavior modeling was conducted (using BehavePlus software package) to document the type and intensity of fire that would be expected to occur from west, north and east/northeast of the Project site. Pre- and post-Project site characteristics considered

in fire behavior modeling inputs (i.e. topography, vegetation, and weather) and modeling results are further discussed below.

Slope

The Project site is currently undeveloped and vacant, consisting of naturally vegetated slopes and disturbed land. The topography ranges from moderately steep to relatively flat, and is highly variable with elevations ranging from approximately 475 to 720 feet above mean sea level (amsl). Topography and slope variations can influence surface winds, which impact wildfire behavior. While the topography of the Project site is highly variable, ranging from moderately steep slopes to relatively flat, the Project site does not include topography that would create unusual weather conditions. Once developed, the Project site would be graded and developed with roadways, residential and recreational uses. Open space areas that would remain would include landscaping improvements, including fuel modification zones (further discussed below), and recreational areas.

Prevailing Winds

The prevailing wind pattern in the project area is from the west (on-shore), but a diurnal wind pattern results in winds from the west–southwest (Pacific Ocean) during the day and winds from the northeast (inland) at night, averaging 2 miles per hour (mph). During the summer season, the diurnal winds may average slightly higher speeds (approximately 19 mph) than the winds during the winter season due to greater pressure gradient forces. However, the Project site is subject to periodic extreme fire weather conditions that occur throughout Ventura County, associated with drought conditions and Santa Ana winds, when wind speeds may exceed 50 mph.

Vegetation Management and Setbacks

As shown in **Table 3.18-1,** he majority of the site is covered in annual brome grassland, coyote brush scrub, and California sagebrush-deerwood, in addition to nonnative woodland and non-vegetated areas. Variations in vegetative cover type and species composition have a direct effect on fire behavior. For example, grasses produce lower intensity, higher spread rate fires, while California sagebrush scrub can produce higher heat intensity and higher flame lengths under strong, dry wind patterns, but does not typically ignite or spread as quickly as light, flashy grass fuels. When modeling fire behavior the corresponding fuel models for each of these vegetation types are designed to capture these differences.

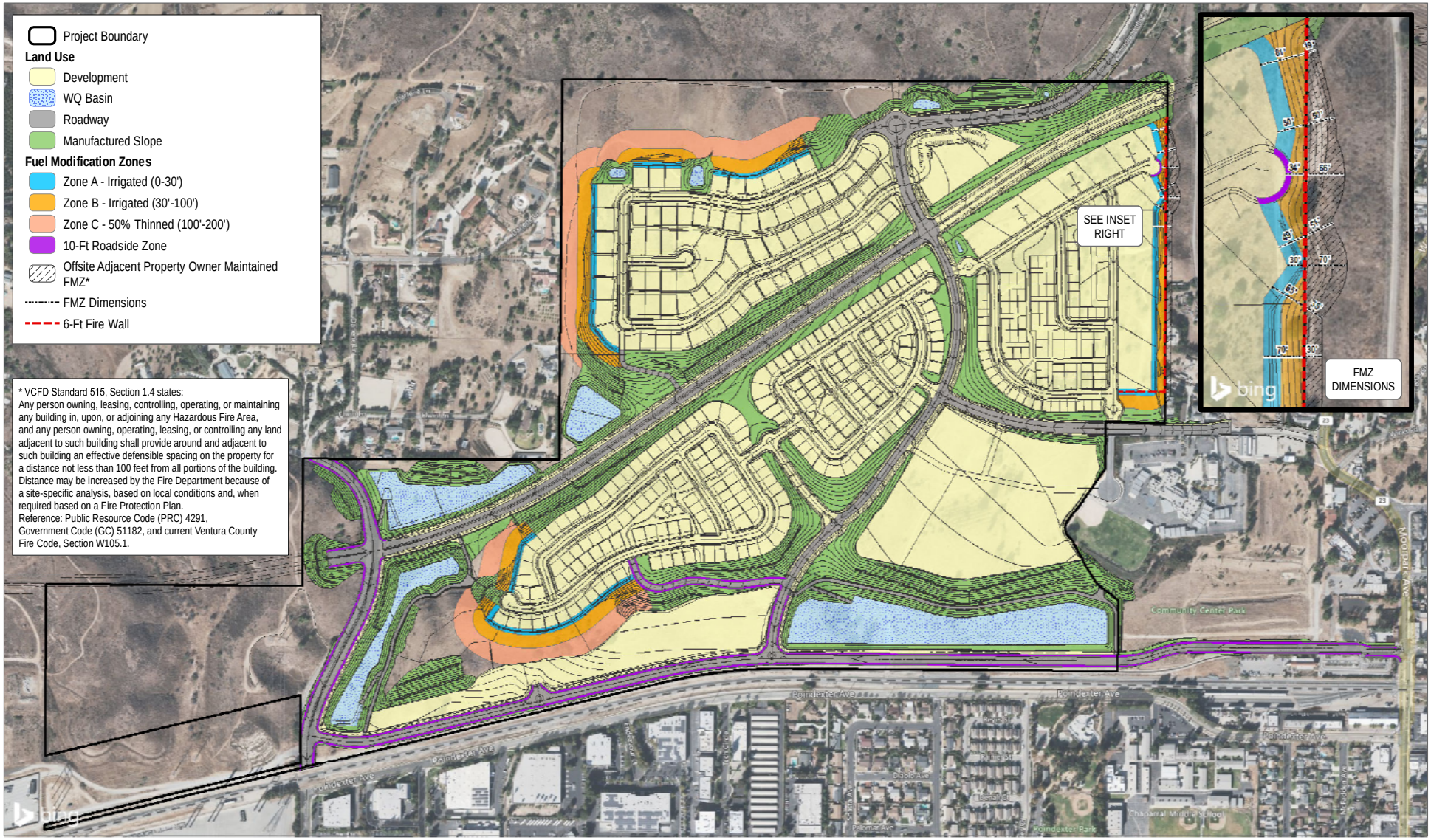
While development of approximately 755 dwelling units, open space and recreational uses would introduce new potential ignition sources to the Project site, the site would be largely converted from readily ignitable fuels to structures and landscaped areas, consisting of ignition resistant building materials and

an ignition resistant plant palette. The project would be developed according to all existing building codes and fire codes, as indicated in the Ventura County Fire Code (Ventura County Municipal Code Section 5111, Ordinance No. 31), which adopts the 2019 California Fire Code, and the City's fire hazard zone requirements (Moorpark Municipal Code Section 15.08.060). These codes include provisions for fuel modification and defensible space for fire prevention and safety.

While the project would convert readily ignitable fuels to structures and maintained landscaped areas, the project would be exposed to naturally-vegetated open space areas to the northern, eastern, and western portions of the site. The remainder of the Project site would be adjacent to residential communities to the northwest, south, and east, and commercial buildings to the south. Fuel modification zones (FMZs) would be implemented in areas adjacent to open space, in accordance with the VCFD's Ordinance 31 Appendix W, VCFD Standard 515 – Defensible Space and Fuel Modification Zones and Standard 517 – Application of Mulch and Chips in Defensible Space, including all manufactured and maintained slopes.

As required by the Fire Code, a FMZ is a strip of land where combustible vegetation has been removed and/or modified and partially or totally replaced with more adequately spaced, drought-tolerant, fire resistant plants in order to provide a reasonable level of protection to structures from wildland fire. Per VCFD standards, which are consistent with the 2019 California Fire Code (Section 4907 — Defensible Space), Government Code 51175 – 51189, and Public Resources Code 4291A, a FMZ is required around every building that is designed primarily for human habitation or use within a VHFHSZ. A typical landscape/fuel modification installation per the County's Fire Code consists of a 30-foot-wide irrigated zone (Zone A) and a 70-foot wide irrigated zone (Zone B) for a total of 100 feet in width on the periphery of the Project site, beginning at the structure. An additional 100-foot wide thinning zone (Zone C) is required for the areas adjacent to natural-vegetated, open space areas, such as is found north of the Project site.

The proposed fuel modification plan for the project is shown in **Figure 3.18-3, Conceptual Fuel Modification Plan**, including a minimum 30-foot wide limited planting area (Zone A), a minimum 70-foot wide limited planting area (Zone B), and a minimum 100-foot wide 50% thinning zone (Zone C), where feasible. In locations where the project abuts open space and where implementable, the project would include up to 200-feet of FMZ (including Zones A, B, and C) between the natural open space area and on-site structures.



SOURCE: Dudek, 2021.

FIGURE **3.18-3**

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Conceptual Fuel Modification Plan

Due to site constraints, it is not feasible to achieve the standard FMZ width on the entirety of the eastern property boundary. The project's eastern property line can only provide an area between 68 and 121 feet of structural setback from off-site fuel beds. Where the eastern property boundary abuts existing development, additional fire protection measures would not be required. However, where the Project site abuts open space areas and achievable FMZs are less than 100 feet, additional measures would be required to mitigate the non-conforming fire related threats and proposed reduced fuel modification zones. In order to provide compensating structural protection in the absence of a 100-foot wide FMZ, and in addition to the structures being built to the latest ignition-resistant codes, **Mitigation Measure WF-2** would require window upgrades in exceedance of code requirements to be implemented on the side of structures abutting open space areas to reduce the risk of structural loss or damage due to a wildfire. These measures are customized for the Project site based on the analysis results and focus on providing the functional equivalency of a County-defined, full FMZ. A 10-foot wide roadside FMZ along each side of the Project roads adjacent to the open space would be implemented as well. Fuel modification would occur throughout the Project site prior to construction and the Hitch Ranch Homeowner's Association (HOA) would conduct annual fuel modification (or more often, as determined by VCFD) to reduce the potential for fire ignition and spread.

Further, in accordance with **Mitigation Measure WF-3**, project landscaping would be implemented according to the VCFD Fire Hazard Reduction Program Plant Reference Guide and the VCFD Prohibited Plant List identified in the mitigation measure (as recommended by the Hitch Ranch Fire Protection Plan, Appendix 3.18).

Building Materials and Other Factors

The Project would be developed according to all existing building codes and fire codes, as indicated in the Ventura County Fire Code (Ventura County Municipal Code Section 5111, Ordinance No. 31), which adopts the 2019 California Fire Code, and the City's fire hazard zone requirements (Moorpark Municipal Code Section 15.08.060). These codes include provisions for building materials, infrastructure, and defensible space, site access, and fire protection systems (e.g., water, fire flow, fire hydrants, interior fire sprinklers). All new structures within the project would be constructed in accordance with Ventura County Fire Code, VCFD's Ordinance 31, and 2019 CFC standards. Each of the proposed dwelling units would comply with the enhanced ignition-resistant construction standards of the 2019 California Building Code (Chapter 7A). These requirements address roofs, eaves, exterior walls, vents, appendages, windows, and doors and result in hardened structures that have been proven to perform at high levels (resist ignition) during the typically short duration of exposure to burning vegetation from wildfires.

Further, infrastructure, such as Project roads, water service, fire hydrants, and automatic fire sprinkler systems would be implemented in accordance VCFD Fire Ordinance Standards (VCFD Ordinance No. 31), and nationally accepted fire protection standards, as well as additional requirements (**Mitigation Measure WF-2**) to assist in providing reasonable on-site fire protection.

Fire Behavior Modeling

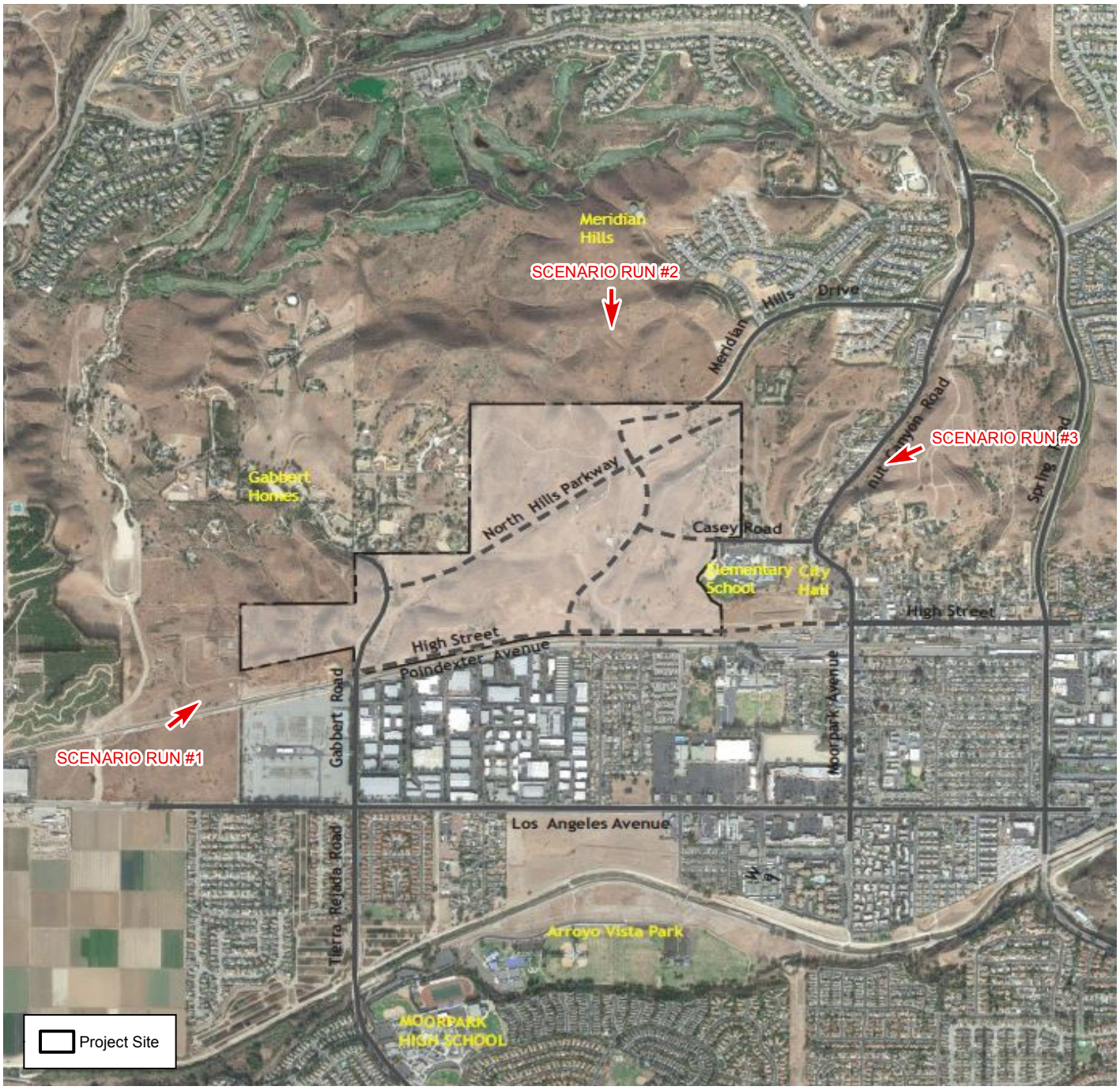
As presented in the FPP, fire behavior modeling was conducted for pre- and post-Project conditions to document the type and intensity of fire that would be expected to occur on and adjacent to the Project site given site characteristics (i.e., topography, vegetation, and weather). Three fire scenarios were evaluated for pre- and post-project conditions: a summer, onshore weather condition with a fire approaching from the west (Scenario 1) and two extreme fall, offshore weather conditions with a fire approaching from north (Scenario 2) and east/northeast (Scenario 3). The location and direction of each fire modeling scenario is presented in **Figure 3.18-4, Fire Modeling Scenarios**.

Pre-Project Conditions

Table 3.18-3 presents the fire behavior modeling results for the anticipated fire behavior under pre-project conditions. As presented, wildfire behavior on the Hitch Ranch Project site is expected to be primarily of moderate to high intensity throughout the non-maintained grass dominated fuels north and northeast of the Proposed Project site. Worst-case scenario fire behavior is expected to occur in the non-maintained grass north and northeast of the Project site under peak weather conditions (represented by Fall Weather, Scenarios 2 and 3). A worst-case scenario fire would be anticipated to be a wind-driven fire from the north/northeast during the fall. Under such conditions, with wind speeds reaching over 50 mph, surface flame lengths would be expected to reach 74 feet, with fast spread rates of 20 mph and spotting distances of up to 3.5 miles away.

Post-Project Conditions

Table 3.18-4 presents the fire behavior modeling results under post-project conditions. Under post-project conditions, fires burning into brush thinning zones of the proposed FMZs are expected to be less intense and generate lower flame lengths. As presented in **Table 3.18-4**, upon reaching FMZ Zone C, a worst-case scenario fire (Scenarios 2 and 3) would be expected to produce flames lengths up to approximately 18 feet with relatively slow spread rates of 2.1 mph and a potential spotting distance of up to 1.3 miles away. The 74-foot flame lengths predicted for non-native grassland fuels during pre-treatment modeling for fire scenarios 2 and 3 are reduced to approximately 18 feet by the time FMZ (Zone C) is reached and to approximately three-feet by the time FMZ (Zones A and B) are reached. These reduction of flame lengths and intensities are assumed to occur within the 200 feet of fuel modification (an irrigated Zone A and B and 50% thinning Zone C).



SOURCE: Dudek, Google Mapping Service, 2019.

FIGURE **3.18-4**

Fire Modeling Scenarios

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Table 3.18-3
BehavePlus Fire Behavior Modeling Results, Pre-Project Conditions

Fire Scenario	Flame Length (feet)	Spread Rate (mph)[1]	Fireline Intensity (Btu/ft/s)	Spotting Distance[2] (Miles)
Scenario 1: 5% slope, Summer, Onshore, Summer Winds (Pre-Development)				
High Load Grass (Gr7)	29.1′	3.5	8,616	1.1
Scenario 2: 9% slope, Fall, Offshore Extreme Winds (Pre-Development)				
High Load Grass (Gr7)	42.9′ (74.6′ & 87.1′)[3]	6.0 (20.0 & 28.0)[3]	20,054 (66,781 & 93,536)[3]	1.2 (3.5 and 4.9)[3]
Scenario 3: 5% slope, Fall, Offshore, Extreme Winds (Pre-Development)				
High Load Grass (Gr7)	43.0′ (74.6′ & 87.1′)[3]	6.0 (20.0 & 28.0)[3]	20,168 (66,846 & 93,591)[3]	1.2 (3.5 & 4.9)[3]

Note:
[1]. MPH = miles per hour
[2]. Spotting distance from a wind driven surface fire.
[3]. The wind mph in parenthesis represents peaks gusts of 50 and 70 mph, respectively.

Table 3.18-4
BehavePlus Fire Behavior Modeling Results, Post-Project Conditions

Fire Scenario	Flame Length (feet)	Spread Rate (mph)[1]	Fireline Intensity (Btu/ft/s)	Spotting Distance[2] (Miles)
Scenario 1: 5% slope, Summer, Onshore, Summer Winds (Post-Development)				
FMZ Zones A and B (FM8)	1.8′	0.1	20	0.2
FMZ Zone C (Gr2)	7.2′	1.1	420	0.4
Scenario 2: 9% slope, Fall, Offshore Extreme Winds (Post-Development)				
FMZ Zones A and B (FM8)	2.1′ (3.0′ & 3.0′)[3]	0.1 (0.2 & 0.2)[3]	29 (63 & 63)	0.2 (0.4 & 0.5)[3]
FMZ Zone C (Gr2)	10.9′ (18.0′ & 18.0′)[3]	2.1 (6.2 & 6.2)[3]	1,012 (3,037 & 3,037)[3]	0.5 (1.3 & 1.6)[3]
Scenario 3: 5% slope, Fall, Offshore, Extreme Winds (Post-Development)				
FMZ Zones A and B (FM8)	2.1′ (3.0′ & 3.0′)[3]	0.1 (0.2 & 0.2)[3]	29 (63 & 63)[3]	0.2 (0.4 & 0.5)[3]
FMZ Zone C (Gr2)	10.9′ (18.0′ & 18.0)[3]	2.1 (6.2 & 6.2)[3]	1,018 (3,037 & 3,037)[3]	0.5 (1.3 & 1.5)[3]

Note:
[1]. MPH = miles per hour
[2]. Spotting distance from a wind driven surface fire.
[3]. The wind mph in parenthesis represents peaks gusts of 50 and 70 mph, respectively.

Summary

Given the anticipated growing population of Ventura County's wildland urban interface (WUI) areas, including in the City of Moorpark, and the region's fire history, it can be anticipated that periodic wildfires will occur in the open space areas of Ventura County, with the natural open spaces north and northeast of the Project site being no exception. Given the climatic, vegetative, topographic characteristics, and local fire history of the area, the Project site, once developed, could be subject to periodic wildfires that may start on, burn onto, or spot into the site. The potential for an off-site wildfire encroaching on, or showering embers on the site is considered moderate, but risk of ignition from such encroachments or ember showers is considered low based on the type of construction and fire protection features that would be required for the structures.

The Proposed Project would introduce potential ignition sources to the site, however, all new structures would be constructed to Ventura County Fire Code, Ventura County Fire Protection District's Fire Ordinance 31, and 2019 CFC standards (or the current edition). As discussed, the ignition-resistant construction standards required for development in a FHSZ address roofs, eaves, exterior walls, vents, appendages, windows, and doors and result in hardened structures. The project would implement a fire hardened landscape, highly ignition resistant residential dwelling units, and conversion of flashy fuels (non-native grasslands) to developed areas, with designated review of all landscaping and maintenance of fuel modification areas. Fires from off-site would not have continuous fuels across this site and would therefore be expected to burn around and/or over the site via spotting. Based on the predicted fire intensity and duration along with flame lengths for the Project site and the provided FMZs, the greatest concern is considered to be from firebrands or embers as a principal ignition factor. Burning vegetation embers may land on project structures but are not likely to result in ignition based on ember decay rates and the types of non-combustible and ignition-resistant materials that will be used on site. The project would comply with applicable ignition-resistant fire and building codes and would include a layered fire protection approach which is designed to current codes and inclusive of site-specific measures that would result in a project that is less susceptible to wildfire than surrounding landscapes. These ignition-resistant features would form a redundant system of protection to minimize the likelihood of exposing residents and visitors, as well as structures, to the uncontrolled spread of a wildfire. This same fire protection system would provide protections from an on-site fire spreading to off-site vegetation. As such, accidental fires within the maintained landscape or structures in the Hitch Ranch project would have limited ability to spread. It should be noted that while these standards would provide a high level of protection to structures for the Proposed Project, there is no guarantee that compliance with these standards would prevent damage or destruction of structures by fire in all cases.

Wildlands near the Project site are expected to be exposed to periodic wildfire ignition and spread and may be subject to nearby wildfire. A response map update, including roads and fire hydrant locations, in a format compatible with current department mapping would be provided to the VCFD for approval. Further, adequate water supply, approved paved access roadways and site improvements within the active development area would be in place, including utilities, operable fire hydrants, an approved, temporary roadway surface, and fuel modification zones established, prior to any combustibles on site (**Mitigation Measure WF-1**).

The Proposed Project, once developed, would not facilitate wildfire spread and would reduce projected flame lengths to levels that would be manageable by firefighting resources for protecting the site's structures, especially given the ignition resistance of the structures and the planned ongoing maintenance of the entire site landscape. Therefore, wildfire occurrence, frequency or size would not be expected to be significantly exacerbated by construction of the Proposed Project.[11] With adherence to all required building and fire codes, and with implementation of the fire prevention measures and design features as outlined in **Mitigation Measures WF-1** through **WF-4,** the project would not exacerbate wildfire risks[12], due to slope, prevailing winds, and other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and impacts would be less than significant with mitigation incorporated.

Impact WIL-3 **Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.**

Less than Significant Impact with Mitigation

The Project involves the development of residential, open space and recreational areas on a previously undeveloped site. The Project would include installation and maintenance of associated infrastructure including driveways and roadways, connections to service utilities (e.g., water, wastewater, stormwater drainage, electric power, natural gas, and telecommunications services), water drainage and water quality improvements (e.g., stormwater retention basin), and fuel breaks (e.g., fuel modification zones). Installation

11 A decision by the California Third District Court of Appeal, filed June 16, 2021, in the New Town Preservation Society vs. County of El Dorado, has reaffirmed precedent finding that the key question for hazards, such as wildfire, in the context of CEQA is not the impact that the existing environment presents to the project, but whether implementation of the project would exacerbate hazard risks. C092069.PDF (ca.gov), accessed July 21, 2021.

12 Ibid.

and maintenance of this associated infrastructure and the potential to exacerbate wildfire risk or result in impacts to the environment is further discussed below.

Fuel Modification Zones

An important component of a fire protection system for the project is the provision of ignition resistant landscapes and modified vegetation buffers. FMZs are designed to provide vegetation buffers that gradually reduce fire intensity and flame lengths from advancing fire by strategically placing thinning zones, restricted vegetation zones, and irrigated zones adjacent to each other on the perimeter of the Wildland Urban Interface exposed structures.

The Proposed Project will be exposed to naturally-vegetated open space areas to the northern and western portions of the site. The rest of the proposed development is adjacent to a residential communities to the northwest, south, and east, the Moorpark County Club Course approximately half a mile to the north, and commercial buildings to the south. FMZs will be provided for those portions of the proposed development that are adjacent to open space areas in accordance with the VCFD's Ordinance 31 Appendix W, VCFD Standard 515 – Defensible Space and Fuel Modification Zones and Standard 517 – Application of Mulch and Chips in Defensible Space, including all manufactured and maintained slopes.

As previously discussed in Impact WIL-2, the Project would include up to 200 feet of fuel modification between the natural open space area to the north and west and on-site structures, and the eastern edge of the Project site would receive 68 to 121 feet of FMZs to the top of the grading limits (see Figure 3.18-3). FMZs would be maintained on at least an annual basis or more often as needed to maintain the fuel modification buffer function. Because FMZs are designed to gradually reduce fire intensity and flame lengths, the installation and maintenance of FMZs would reduce, rather than exacerbate, wildfire risk. Per **Mitigation Measure WF-1,** adequate defensible space must be created before bringing any combustible materials on to the Project site, and vegetation management activities would occur prior to the start of construction and throughout the life of the Project. Consequently, the associated vegetation management activities would not exacerbate fire risk, provided that fuel modification and other vegetation management activities are implemented and enforced according to VCFD and state requirements. The proposed vegetation management activities would reduce the fire risk by thinning or removing combustible vegetation and implementing a landscape plan with more adequately spaced, drought-tolerant, low-fuel-volume plants (in accordance with **Mitigation Measure WF-3**) in order to provide a reasonable level of protection to structures from wildland fire.

Road Width and Circulation

The Project would involve construction of access roads by extending existing roads into the Project site, as well as an internal circulation network. The on-site roadway network would be integrated into the broader roadway network in the Project area. The presence of increased human activity and vehicles along newly installed roads would introduce new potential ignition sources to the Project area. However, vegetation management would be required along roadways within the Very High FHSZ for roads internal and external to the Project site. On-site roads would be constructed to current Ventura County Fire Apparatus Access Code standards (Ordinance Number 29) and 2019 CFC (or then current edition), including all fire access roadways designed for one-way traffic shall have an unobstructed width of not less than 20 feet; all access roadways designed for two-way traffic shall have an unobstructed width of not less than 24 feet. Fire access roadways designed to allow parking shall provide a minimum clear width of not less than 32 feet for parking on one side and a clear width of not less than 36 feet for parking on both sides and shall be improved with asphalt paving materials that support the imposed loads of fire apparatus (not less than twenty-tons or 80,000 lbs. after a 10-year storm). Turning radius for fire apparatus access roads will be 40 feet as measured at the center line of the access road.

Access to the site would be improved as indicated in the proposed amendment to Moorpark's General Plan Circulation Element associated with the Project, North Hills Parkway would ultimately be constructed as a four-lane roadway. Gabbert Road would be improved to a four-lane arterial roadway from North Hills Parkway to the Proposed Project terminus of High Street, tapering down to cross the Union Pacific Railroad tracks and continuing to the point of connection with Poindexter Avenue. North of North Hills Parkway, Gabbert Road would taper back to its existing width.

The circulation upgrades not only benefit the proposed Hitch Ranch project, but also provide a public benefit to the surrounding communities and elementary school by providing additional access to these existing one-way in and out communities. Access to the Gabbert Canyon neighborhood to the northwest will be improved by providing a new easterly evacuation route by extending High Street from its current terminus east of the Project site across the southern boundary of the Project site north to the railroad track to Gabbert Road. The Meridian Hills neighborhood to the northeast will be improved by providing a southerly evacuation route through Hitch Ranch by extending Meridian Hills Drive from the existing terminus and connecting it to "A" Street at North Hills Parkway. Finally, Walnut Canyon Elementary school to the east is currently accessed by a dead end, two-lane road off Moorpark Avenue. There presently are no evacuation routes or secondary vehicle access roads to the school. However, the Proposed Project would provide an additional evacuation route through the Hitch Ranch community by extending Casey Road from its terminus east of the Project site west into the project. As required under the Ventura County Fire Code, a FMZ of 10 feet on each side of fire apparatus access roads and driveways in addition to an

unobstructed vertical clearance of 13 feet, 6-inches above the roadways. Roadside fuel modification consists of mowing grasses to 6-inches in height and/or maintaining ornamental landscapes, including trees, clear of dead and dying plant materials. Roadside fuel modification would be maintained by the HOA. Therefore, installation and maintenance of site access roads in accordance with all relevant development codes would not exacerbate wildfire risk and would improve emergency access to the site and surrounding areas.

In addition, two secondary emergency vehicle access entry/exit roads are proposed within Planning Area 1 and Planning Area 2, to provide additional access to North Hills Parkway from Planning Area 1 and "A" Street from Planning Area 1. The secondary access roads will include a secondary access gate with Knox box switches allowing emergency vehicles access into and out of Planning Area 1 and Planning Area 2, as well as an automatic exit loop system allowing the residents of Planning Area 1 and Planning Area 2 to exit the communities. Any access gates will comply with Ventura County Fire Department 501 Apparatus Access Code Standard – Ordinance Number 29. Gates across fire apparatus access roads shall not be limited to emergency exit-only and shall provide for egress for all persons at all times without the use of keys, codes, remote controls, or special knowledge. Gates on private roads and secondary access roads will comply with VCFD standard for electric gates and will include a Knox box switch and automatic exit loops.

Utilities

As discussed in **Section 3.17, Utilities and Service Systems**, existing utility service lines are located within the vicinity of the Project site, and connection to utility service lines would be implemented as part of the project. Connections to utility service lines, including those for water, wastewater, stormwater drainage, electric power, natural gas, and telecommunications services, would be extended from their current locations nearby the Project site to the proposed buildings. Given that connecting utilities from their current locations to the Project site would require ground disturbance and the use of heavy machinery associated with trenching, the installation of these utility service lines would introduce new potential sources of ignition to the site, such as the use of heavy machinery, welding, or other hot work. However, as previously discussed, vegetation management activities would occur prior to the start of construction, which would reduce the likelihood of fire ignition during installation and connection of utilities.

Further, other than lateral connections to nearby utility mains, the project would not require or result in the relocation or construction of new or expanded service utilities facilities, the construction or relocation of which could exacerbate wildfire risk or cause significant environmental effects.

Water service for the project would be provided by the Ventura County Waterworks District (VCWWD) No. 1 and would be consistent with VCFD requirements. The project would connect to existing water mains

running along Gabbert Road, Meridian Hills Drive, and Moorpark Avenue/Walnut Canyon Road. The water distribution system is designed to yield a minimum residual pressure of 40 pounds per square inch (psi) during peak hour demands and a minimum residual pressure of 20 psi during maximum day demands plus fire flow. Each fire hydrant would be capable of 1,500 gallons per minute (gpm) fire flow for minimum duration of two hours at 20 psi residual pressure. Hydrants would be located along fire access roadways as determined by VCFD to meet operational needs, at the beginning radius of cul-de-sac streets, regardless of parcel size, pursuant to Sections 507.5.1 through 507.5.7 of the VCFPD Ordinance Number 31 and Appendix C of the 2019 CFC for single- and multi-family residential units. Fire Hydrants would be consistent with applicable Design Standards. Installation of water service and fire hydrants would reduce, rather than exacerbate, fire risk on site.

All new power lines would be underground for fire safety, with the exception of temporary construction power lines would be allowed in areas that have been cleared of combustible vegetation.

The Hitch Ranch Homeowners Association (HOA) and/or a Community Facilities District (CFD) would be responsible for long term funding and maintenance of private roads and fire protection systems, including fire sprinklers and private fire hydrants. Per **Mitigation Measure WF-1**, all underground utilities, hydrants, water mains, curbs, gutters, and sidewalks would be installed, and the drive surface would be approved prior to combustibles being brought on site. As such, the installation and maintenance of utilities in accordance with regulatory requirements in conjunction with **Mitigation Measure WF-1** would not exacerbate wildfire risk.

Summary

Installation and maintenance of project roads, service utilities, fuel modification, drainage and water quality improvements, and other associated infrastructure would not exacerbate wildfire risks provided that the appropriate fire prevention, access, and vegetation management activities are implemented as required by the VCFD, City code and state requirements.[13]

Given that the activities involved with installation or maintenance of associated infrastructure would require ground disturbance and the use of heavy machinery associated with trenching, grading, site work, and other construction and maintenance activities, the installation of related infrastructure could potentially result in temporary or ongoing impacts to the environment. However, the installation and maintenance of roads, service utilities, drainage and water quality improvements, and vegetation

[13] A decision by the California Third District Court of Appeal, filed June 16, 2021, in the New Town Preservation Society vs. County of El Dorado, has reaffirmed precedent finding that the key question for hazards, such as wildfire, in the context of CEQA is not the impact that the existing environment presents to the project, but whether implementation of the project would exacerbate hazard risks. C092069.PDF (ca.gov), accessed July 21, 2021.

management activities are part of the Project analyzed herein. As such, any potential temporary or ongoing environmental impacts related to these components of the Proposed Project have been accounted for and analyzed in this EIR as part of the impact assessment conducted for the entirety of the project. Additionally, the project would be required to comply with all regulatory requirements and mitigation measures outlined within this EIR for the purposes of mitigating impacts associated with trenching, grading, site work, and the use of heavy machinery. No adverse physical effects beyond those already disclosed in this EIR would occur as a result of implementation of the project's associated infrastructure.

Therefore, the installation and maintenance of associated infrastructure would not exacerbate wildfire risk or result in impacts to the environment beyond those already disclosed and mitigated with **Mitigation Measures WF-1 through WF-3**, and impacts would be less than significant.

Impact WIL-4 **Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.**

Less than Significant Impact with Mitigation

As discussed in **Section 3.9, Hydrology**, an evaluation of the debris production with Ventura County was calculated in order to determine if the five proposed debris basins (DB1A, DB1B, DB2, DB3, and Basin 2B) would be adequate in a 100-year flooding event. For detention basins with tributary watersheds totaling less than five square miles, the volume required for debris storage is 125 percent of the debris volume expected from the 100-year storm. The project includes five debris basins that are anticipated to be adequate to support the sediment yield of a 100-year flood event. Moreover, the proposed facilities, including the retention basins, provide a significant benefit to the overall systems. Under existing conditions, there is a significant amount of flow overtopping the Union Pacific Railroad tracks immediately upstream of Gabbert Road, which could impact the industrial/commercial area to the south. This issue will be completely eliminated under the Interim and Ultimate Conditions.

Hitch Ranch will be designed to limit downstream discharges to predevelopment levels. This will necessitate the temporary detention of floodwater. Because flood control basins are only infrequently filled with water, they lend themselves to multiple uses. Soccer fields, parks, wildlife habitat, and similar uses may be incorporated into detention basins at Hitch Ranch. The detention basins would be designed and constructed to meet or exceed minimum VCWPD design standards. The proposed regional basins would meet the performance and design requirements set forth in the Regional Watershed Master Plan for Walnut

and Gabbert Canyons, which were approved and accepted by both the City of Moorpark and VCWPD in 2006.[14]

With the implementation of Mitigation Measures **HYD-1** through **HYD-5**, while the project will increase the amount of impervious surfaces on the Project site, the drainage pattern will not be altered in such a way to result in increases in downslope or downstream flooding.

As discussed in **Section 3.6, Geology and Soils**, steep natural slopes are located within the southwestern area of the specific plan site. The slopes are about 70 to 80 feet in height. The slopes have gradients of 1-1/2 (horizontal [h]) to 1 (vertical [v]), and 2(h) to 1(v) or shallower. Engineering analyses have identified these slopes have factors of safety for stability that are less than required by governing construction codes. Habitable structures are proposed to be setback from these slopes to where the factors of safety for stability meet or exceed governing construction codes, and impacts would be less than significant.

Manufactured slopes within the development area are proposed to be constructed at a gradient of 2(h) to 1(v) or less. The highest or maximum cut slope in the development area would be about 75 feet in height and would be situated just north of Poindexter Avenue. The highest or maximum fill slope in the development area would be about 61 feet in height and occur along a south-facing slope near the south-central portion of the specific plan site. Lastly, a fill over cut slope of about 89 feet in height is proposed in the southeastern portion of the specific plan site. Proposed manufactured slopes on the specific plan site would result in a static safety factor of greater than 1.5, thus resulting in less than significant impacts. Cut slopes could exposed localized conditions of locally-adverse geologic structure, expose sandy bedrock materials that are friable and prone to erosion, or possible nuisance seepage issues. However, implementation of **Mitigation Measure GS-1** through **GS-3**, would reduce potential impacts related to this issue to less than significant.

Following the implementation of **Mitigation Measures HYD-1** through **HYD-5** and **GS-1** through **GS-3**, the Proposed Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, and impacts would be less than significant.

3.18.5 CUMULATIVE IMPACTS

The cumulative context considered for Project wildfire impacts is Ventura County, and more specifically, the Walnut Canyon watershed. CAL FIRE has mapped areas of fire hazards in the state based on fuels, terrain, weather, and other relevant factors. As described above, the Project site is located in a Very High

14 *Gabbert and Walnut Canyon Channels Flood Control Deficiency - Addendum,* dated August 2005.

FHSZ. The project, combined with other projects in the region, would increase the population and/or activities and potential ignition sources in the area, which may increase the potential of a wildfire and increase the number of people and structures exposed to risk of loss, injury, or death from wildfires. Individual projects located within Ventura County are required to comply with applicable County fire and building codes, which have been increasingly strengthened as a result of severe wildfires that have occurred in the last two decades. The fire and building codes include fire prevention and protection features that reduce the likelihood of a fire igniting in a specific project and spreading to off-site vegetated areas. These codes also protect projects from wildfires that may occur in the area through implementation of brush management and fuel management zones, ensuring adequate water supply, preparation of fire protection plans, and other measures.

Suggestions that placing new residential projects in the County's wildland–urban interface will increase the risk of fire ignition are not consistent with available research. According to the available evidence, no large fires in Southern California since 1990 were determined to have been started within a nearby master-planned, ignition-resistant subdivision or neighborhood. Syphard and Keeley[15] summarized all wildfire ignitions included in the CAL FIRE FRAP database dating back over 100 years. They found that in San Diego County (which is similar to the Ventura County fire environment), equipment-caused fires were by far the most numerous, and these also accounted for most of the area burned; power-line fires were a close second. Ignitions classified as equipment-caused frequently resulted from exhaust or sparks from power saws or other equipment with gas or electrical motors, such as lawn mowers, trimmers, or tractors.[16] These ignition sources are typically associated with lower-density housing, not higher-density housing such as that proposed in the project. In addition, electrical transmission lines would be undergrounded in the project area, mitigating the risk from electrical transmission line vegetation ignitions.

Data indicate that lower-density housing poses greater ignition risk. In the Southern California study, ignitions were more likely to occur close to roads and structures, and at intermediate structure densities.[17] This is likely because lower-density housing creates a wildland–urban intermix rather than an interface. The intermix places housing among unmaintained fuels, whereas higher-density housing, such as the Project, converts all fuels within the footprint and provides a wide, managed fuel modification zone separating homes from unmaintained fuel. Further, Syphard and Keeley[18] determined that "[t]he WUI [wildland–urban interface], where housing density is low to intermediate, is an apparent influence in most

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15 Syphard, Alexandra D., and Jon E. Keeley. 2015. "Location, Timing and Extent of Wildfire Vary by Cause of Ignition." *International Journal of Wildland Fire*. 11 pp.

16 Ibid.

17 Ibid.

18 Ibid.

ignition maps." This further enforces the notion that lower-density housing is a larger ignition issue than higher-density communities. A different study found that "development of low-density, exurban housing may also lead to more homes being destroyed by fire."[19] Neither of these studies considered the fire hazard and risk reduction associated with HOA-managed fire modification zones and ignition-resistant structures. The Fire Protection Plan plant palette restrictions (**Mitigation Measure WF-3**) combined with HOA maintenance and annual inspections (**Mitigation Measure WF-4**), would minimize the establishment and expansion of exotic plants, including grasses. Based on research of the relevant literature and extensive conversations with active and retired fire operations and prevention officers, there is no substantial evidence that new residential neighborhoods built to the requirements of Ventura County's Fire and Building Codes increase the risk of wildfire ignition. Rather, the data indicate that roadways, electrical distribution lines, and lower-density residential projects (that do not have HOA-enforced restrictions and annual inspections) are the primary causes of increased wildfire ignition. The project would provide roadside fuel modification throughout the Project site, and electrical lines would be subterranean.

Furthermore, other cumulatively considerable projects would be required to comply with the County's vegetation clearance requirements, as outlined in the County Municipal Code. The Ventura County Fire and Building Codes, along with project-specific needs assessments and fire prevention plan requirements, ensure that every project approved for construction includes adequate emergency access. Roads for all proposed projects are required to meet minimum widths, have all-weather surface, and be capable of supporting the imposed loads of responding emergency apparatus. The Hitch Ranch project and all other future development projects in the service area would be subject to discretionary review by the VCFD and would be required to comply with the County Fire Code and other relevant County Code requirements and other applicable local codes (e.g., City of Moorpark Fire Code) and regulations related to fire safety, building construction, access, fire flow, and fuel modification. Therefore, because all projects are required to comply with these requirements, cumulative impacts related to increased wildfire hazards and emergency response and access would be less than significant.

3.18.6 MITIGATION PROGRAM

3.18.6.1 Project Design Features

Based on the results of the FPP's analysis and findings, the following Project Design Features will be implemented by the Proposed Project.

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19 Syphard, A.D., A. Bar Massada, V. Butsic, and J.E. Keeley. 2013. "Land Use Planning and Wildfire: Development Policies Influence Future Probability of Housing Loss." PLoS ONE 8(8), e71708. doi:10.1371/JOURNAL. PONE.0071708.

- Project buildings will be constructed of ignition resistant[20] construction materials and include automatic fire sprinkler systems based on the latest adopted Building and Fire Codes for occupancy types.

- The project design incorporates the establishment and maintenance of up to 200 feet of Zone A, Zone B, and Zone C fuel modification zones (FMZs) for the Project site. The FMZs will consist of irrigated and maintained landscapes that will be subject to regular "disturbance" in the form of maintenance and will not be allowed to accumulate excessive biomass over time, which results in reduced fire ignition, spread rates, and intensity.

- Landscape plantings will not utilize prohibited plants that have been found to be highly flammable by the Ventura County Fire Protection District.

- Fire apparatus access roads (i.e., public and private streets) will be provided throughout the development and will vary in width and configuration but will all provide at least the minimum required unobstructed travel lanes, lengths, turnouts, turnarounds, and clearances required by applicable codes. Primary access and internal circulation will comply with the requirements of the VCFD.

- Water capacity and delivery provide for a reliable water source for operations and during emergencies requiring extended fire flow.

- The Hitch Ranch Homeowner's Association will provide Hitch Ranch residents with information on, and encourage them to practice, and implement a "Ready, Set, Go!" (Ventura County Fire Department 2016) approach to site evacuation. The "Ready, Set, Go!" concept is widely known and encouraged by the state of California and most fire agencies, including the VCFD. Pre-planning for emergencies, including wildfire emergencies, focuses on being prepared, having a well-defined plan, minimizing potential for errors, maintaining the site's fire protection systems, and implementing a conservative (evacuate as early as possible) approach to evacuation and site uses during periods of fire weather extremes.

20 A type of building material that resists ignition or sustained flaming combustion sufficiently to reduce losses from wildland-urban interface conflagrations under worst-case weather and fuel conditions with wildfire exposure of burning embers and small flames, as prescribed in CBC, Chapter 7A and State Fire Marshal Standard 12-7A-5, Ignition-Resistant Materials.

3.18.6.2 Mitigation Measures

WF-1: **Pre-Construction Requirements.** Vegetation management shall be conducted prior to the start of construction and throughout all construction phases by a qualified Ventura County Fire Department-approved third-party fuel modification zone inspector hired by the project applicant. Perimeter fuel modification shall be implemented and approved by the VCFD prior to bringing combustible materials on site. Adequate firebreaks at least 50 feet wide shall be created around all grading, site work, and other construction activities in areas where there is flammable vegetation. Existing flammable vegetation shall be reduced by 50% on vacant lots upon commencement of construction. Firebreaks and fuel modification shall be implemented in accordance with Appendix 3.18, Hitch Ranch Fire Protection Plan, and approved by VCFD.

The Project shall comply with the following risk reducing vegetation management guidelines:

- All new power lines shall be underground for fire safety. Temporary construction power lines may be allowed in areas that have been cleared of combustible vegetation. Existing 16 KV power lines within the project may be undergrounded or relocated to the extent practical.

- Caution must be used to avoid causing erosion or ground (including slope) instability or water runoff due to vegetation removal, vegetation management, maintenance, landscaping or irrigation.

Timing/Implementation: Prior to issuance of building permits, during grading and construction activities

Enforcement/Monitoring: Ventura County Fire Department, City of Moorpark Public Works Department

WF-2: In order to provide compensating structural protection in the absence of a 100-foot wide FMZ along the eastern property boundary, the structures along the entire eastern side of the development within Planning Area 3 shall include the following features for additional fire prevention, protection, and suppression:

- The proposed Triplex structures along the eastern edge of the development within PA3 that are adjacent to existing homes off Casey Road, shall be constructed with multi-

pane glazing with a minimum of one tempered pane, and a fire resistance rating of not less than 20 minutes when tested according to NFPA 257, or be tested to meet the performance requirements of State Fire Marshal Standard 12-7A-2 (see **Figure 3.18-3**).

- The remaining Triplex structures along the eastern edge of the development within PA3 are exposed to natural vegetation. Depending on the timing of development of the proposed Senior Living project which currently is not developed, the remaining Triplex structures within the Hitch Ranch development along the eastern edge of the development shall implement either; a.) if the proposed Senior Living development begins construction prior to the Hitch Ranch Project development begins construction, then dual pane single tempered windows will be acceptable, or b.) if the Senior Living development has not begun construction prior to Hitch Ranch Project construction at this site, then dual pane, dual tempered windows will be required for the Hitch Ranch developments that are north of the existing homes off Casey Road up to proposed North Hills Parkway, exceeding the CBC Chapter 7A cod**e** requirement (see **Figure 3.18-3**).

- Provide a noncombustible, 6-foot high concrete masonry unit (CMU) wall at the top of the manufactured slopes behind the units within PA3 along the eastern property boundary. These walls will be installed to function as heat-deflecting walls; vining plants will be established as landscape screening.

Timing/Implementation: Prior to issuance of building permits, during grading and construction activities

Enforcement/Monitoring: Ventura County Fire Department, City of Moorpark Community Development Department

WF-3: A fully irrigated landscape, planted with drought-tolerant, fire-resistive plants shall be implemented in accordance with VCFD Fire Hazard Reduction Program Plant Reference Guide (Appendix D of Appendix 3.18 of this EIR). No undesirable, highly flammable plant species shall be planted, as listed in the VCFD Prohibited Plant List (Appendix E of Appendix 3.18 of this EIR). The landscaping shall be routinely maintained and shall be watered by an automatic irrigation system that will maintain healthy vegetation with high moisture contents that would minimize ignition by embers from a wildfire.

Timing/Implementation: Prior to issuance of building permits

Enforcement/Monitoring: Ventura County Fire Department, City of Moorpark Community Development Department

WF-4: The project HOA shall hire a qualified Ventura County Fire Department-approved third-party fuel modification zone inspector to provide annual inspections. A copy of each inspection report should be provided to the City of Moorpark Community Development Director.

Timing/Implementation: Annually, following project occupancy.

Enforcement/Monitoring: Ventura County Fire Department, City of Moorpark Community Development Department

3.18.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The development of the Hitch Ranch Specific Plan project would have less than significant impacts related to wildfire with implementation of project design features and the mitigation program.

4.0 ALTERNATIVES

INTRODUCTION

This section of the environmental impact report (EIR) provides a comparative analysis of the merits of alternatives to the Proposed Project pursuant to Section 15124.6 of the California Environmental Quality Act (CEQA) Statutes and Guidelines*, as amended. According to the guidelines, an EIR shall describe a range of reasonable alternatives to the project or to its location, which would feasibly attain most of the basic objectives of the project but avoid or substantially lessen any of the significant effects. The EIR shall evaluate the comparative merits of the alternatives. It need not consider every conceivable alternative to a project; rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.*

4.1 CONSIDERATIONS

The range of alternatives in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to make a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any significant effects of the project (Section 15124.6(f)). Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the project's basic objectives. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making. When addressing feasibility, the *State CEQA Guidelines* state that "among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)." The *State CEQA Guidelines* also state that the alternative discussion need not be presented in the same level of detail as the assessment of the proposed project.

Therefore, several factors need to be considered in determining the range of alternatives to be analyzed in an EIR and the level of detail that analysis should provide. These factors include (1) the nature of the significant impacts of the proposed project, (2) the ability of alternatives to avoid or substantially lessen impacts associated with the project, (3) the ability of the alternatives to meet most of the basic objectives of the project, and (4) the feasibility of the alternatives.

The State CEQA Guidelines Section 15126.6(e)(2) requires the analysis of a "no project" alternative. This Section further states that if the environmentally superior alternative is the "no project" alternative, the EIR must identify an environmentally superior alternative among the other alternatives.

As discussed above, the intent of an alternatives analysis is to avoid or substantially reduce the significant and unavoidable impacts identified for the Project, which are as follows:

Aesthetics. As evaluated in **Section 3.1, Aesthetics**, despite the application of certain mitigation measures, implementation of the Hitch Ranch Specific Plan would significantly alter the visual characteristics of the Project site.

Air Quality. As evaluated in **Section 3.2, Air Quality**, despite the application of certain mitigation measures, implementation of the Hitch Ranch Specific Plan would generate daily emissions of reactive organic compounds (ROC) that would exceed the Ventura County Air Pollution Control District's (VCAPCD) threshold of significance for operational emissions at Project buildout in 2027.

All other environmental impacts of the Proposed Project are mitigatable.

Based on the Project's potentially significant impact, the established objectives of the Project (listed in Section 4.0, Project Description, in this Draft EIR), and consideration of the local plans and zoning designations that guide development of the Project Site, the following three alternatives to the Project were selected for analysis:

- Alternative 1 – No Project Alternative,
- Alternative 2 – RPD 20U-N-D Alternative,
- Alternative 3 – 415 Unit Reduced Visual Impact Alternative.

Table 4.0-1, Alternatives Impact Comparison Matrix, is included below to provide a comparison of the major components associated with the Project and each alternative. This section describes and evaluates the three alternatives listed above. In addition, State CEQA Guidelines Section 15126.6(c) requires an EIR to identify any alternatives considered for analysis but dismissed as infeasible. These potential alternatives are also described below.

4.1.1 Proposed Project Summary

The Specific Plan for Hitch Ranch proposes to develop 755 residential units on an approximately 277.30-acre site. The Proposed Project is divided into four planning areas as well as associated public facilities and an Open Space parcel. Of the total units proposed on the Project Site, 79 single-family dwelling units, natural open space, and manufactured slopes will be located in Planning Area 1. Planning Area 2 would contain 188 single-family units, a passive recreation lot, natural open space, manufactured slopes and a water quality/detention basin. Planning Area 3 would contain 160 single-family units and 93 multi-family units, a recreational lot, and manufactured slopes. Planning Area 4 would contain 235 multi-family units

(including 135 affordable apartment units) and manufactured slopes. The Open Space designation preserves open space.

4.1.2 Project Objectives

Section 3.0 identifies significant impacts that would result from implementation of the Proposed Project. The alternatives selected for analysis in this EIR were developed with the aim of minimizing environmental impacts of the Proposed Project, particularly significant impacts, while still meeting most of the project's basic objectives. Those objectives are the following:

4.1.3 Objectives of the Proposed Project

- Develop the project site with a financially feasible, residential project that meets the residential needs of the City of Moorpark.
- Provide residential development consistent with 2021-2023 City Council Goal 1: Identify options and solutions to barriers for housing for all economic and age ranges.
- Create a new community neighborhood that would allow for residential development, while preserving natural resources and open space.
- Contribute to the enhancement of Downtown High Street by providing a new residential customer base, bicycle, vehicle, and pedestrian connections to the downtown.
- Provide a range of housing opportunities with varying densities, types, styles, prices, and tenancy characteristics (for sale versus rental).
- Help to achieve Housing Element goals for affordable housing.
- Avoid leapfrog development and accommodate projected growth in a location, which is adjacent to existing infrastructure, urban services, and community facilities.
- Locate housing next to jobs and in close proximity to transit in order to reduce Vehicle Miles Traveled (VMT).
- Transition development within the project site with consideration for natural resource areas and open space.
- Provide development and transitional land use patterns that supports surrounding land uses.

- Designate sites for needed public facilities including flood control facilities, regional roadways, and trails.

- Provide residential opportunities to respond to economic and market conditions over several years.

- Provide a tax base to support public services associated with the proposed development to appropriately offset development impacts to city services.

- Retain open space and natural vegetation to exist as a buffer between on-site land uses and the surrounding resources to the extent possible while providing fire protection to the proposed land uses.

- Improve safe and adequate vehicle circulation within the regional area.

- Provide pedestrian, bicycle and equestrian trails that connect to the local and regional trail systems in the surrounding hills.

- Promote water conservation through use of drought-tolerant, fire-resistive, and native plants as appropriate.

4.1.4 Alternatives to the Proposed Project

The City of Moorpark, as the lead agency, considered several alternatives to determine if they would lessen the impacts associated with the specific plan. An alternative considered but rejected included locating the project at an alternative site. The alternatives examined within this EIR include Alternative 1, No Project Alternative; Alternative 2, RPD 20U-N-D Alternative (468 affordable units, five single-family residences); and Alternative 3, 415 Unit Reduced Visual Impact Alternative (415 single family residences).

4.2 ALTERNATIVES CONSIDERED AND REJECTED

State CEQA Guidelines Section 15124.6(c) indicates that an EIR should identify any alternatives considered by the lead agency but rejected as infeasible during the scoping process. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR is failure to meet most of the basic project objectives, infeasibility, or inability to avoid significant environmental impacts.

4.2.1 Alternative Location

Consideration of an alternative location has been rejected. *State CEQA Guidelines* Section15124.6(f)(2)(a) indicates that in determining the consideration of an alternative location, "The key question and first step

in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR."

The identification of an off-site alternative is contingent on the availability of a site capable of supporting the project. In order to address an off-site alternative, areas within the City of Moorpark and its Area of Interest that could support new development have been identified through the analysis provided in the City's General Plan. The City of Moorpark General Plan identified four Specific Plan areas (Nos. 1, 2, 9, and 10) as locations of future development within the City's Area of Interest for development during General Plan buildout.

Specific Plan No. 1 is the Proposed Project, the Hitch Ranch Specific Plan. Specific Plan No. 2 is an approximate 445-acre site located north of Spring Road and east of Walnut Canyon Road. Specific Plan No. 2 site was approved for development and has been built-out consistent with the approved Specific Plan. Specific Plan No. 9 is approximately 24.8 acres with a maximum density of 80 units (density limit of 120 units). Specific Plan No. 10 is an approximately 71-acre site with a maximum permitted density of 231 units. Neither the Specific Plan No. 9 nor the Specific Plan No. 10 sites are large enough to support the proposed development assumed for the Hitch Ranch Specific Plan site. In addition, the acquisition of one of these sites or any alternative site by the applicant, which already owns the Project Site, in order to develop the project, would not feasible. Moreover, the City of Moorpark has designated the Project Site for a residential use in order to meet the long-term economic and land use goals of the City. Considering these factors, no alternative site can be identified that could reasonably support the Proposed Project.

4.3 ALTERNATIVE 1 – NO PROJECT/NO DEVELOPMENT ALTERNATIVE

4.3.1 Description

Section 15126.6(e) of the State CEQA Guidelines provides guidance on consideration of the no project alternative. When examining a development project on a specific piece of property, the No Project Alternative is the circumstance under which the Proposed Project does not proceed. Under a No Project scenario, the discussion compares the environmental effects of the property remaining in its current state against the environmental effects that would occur if the Proposed Project were approved and constructed.

The No Project Alternative assumes that no development would occur on the approximately 277.30-acre Project Site. Under the No Project Alternative, the Project Site would remain in its present partially graded, highly disturbed condition. As described in Section 2.0, Project Description, a portion of the Project Site has been graded and, therefore, is either in an otherwise disturbed state (e.g., building pads,

dirt roadways), or is presently open space. Under the No Project Alternative, the potential project-related impacts associated with development of the Project Site and described in Section 3.0, Environmental Impact Analysis would not occur.

4.3.2 Impact Evaluation

Aesthetics

Alternative 1 would not alter the Project Site's existing uses or result in new construction, and the site would remain as it currently is from an aesthetics and visual characteristics perspective. Therefore, Alternative 1 would avoid the Project's significant unavoidable aesthetics impact that would occur due to the buildout of the Project Site.

Air Quality

Alternative 1 would not alter the Project Site's existing condition or result in new construction and, therefore, would not generate additional air pollutant emissions. Construction impacts under Alternative 1 would not occur and operational impacts under Alternative 1 would be avoided. Potential impacts would be less than those of the Project.

Biological Resources

Since no new development would occur under Alternative 1, no associated construction or new uses would take place in areas where biological resources and sensitive habitats exist. Specifically, none of the plant communities (including sensitive plant species) wildlife species (including sensitive wildlife species), nesting birds, protected trees, "waters of the US/waters of the State" under jurisdiction of the US Army Corps of Engineers (USACE) and/or the Regional Water Quality Control Board (RWQCB), or streambed or habitat under the jurisdiction of the California Department of Fish and Wildlife (CDFW) that exist on the Project Site would be affected. New construction and operational impacts to biotic resources would not occur. Although the Project's impacts would be less than significant, potential impacts associated with Alternative 1 would be less than those of the Project.

Cultural Resources

Under Alternative 1, development of new permanent structures and associated grading activities would not occur. Nonetheless, as the Project Site is vacant, there are no historical resources within or adjacent to the Project Site. Thus, similar to the Project, no impacts to historic resources would occur under Alternative 1. Such impacts would be similar to those under the Project.

Under Alternative 1, no grading or other earthwork activities would occur. Thus, Alternative 1 would have limited potential for uncovering archaeological resources and no impacts to archaeological and impacts would occur. Under the Project, impacts associated with the potential discovery of unknown archaeological resources would be less than significant with implementation of mitigation measures. However, because no grading or earthwork activities would occur under Alternative 1, potential impacts under Alternative 1 would be less when compared to the Project.

Energy

Under Alternative 1, new demand for electricity and natural gas would not be generated, and associated infrastructure improvements would not be constructed. As no energy use occurs on the Project Site, there would be no increase in the use of energy under Alternative 1. Although Project impacts would be less than significant, such impacts would be avoided under Alternative 1 and as a result, impacts under Alternative 1 would be less than the Project.

Geology and Soils

Alternative 1 would not alter the existing uses on the Project Site, and would not introduce infrastructure or housing units on the site. As no structures exist on the Project Site, the potential for new impacts related to slope instability, sedimentation, erosion and landform alteration associated with construction activities would not occur. Furthermore, Alternative 1 would not expose additional people and/or structures to potential adverse effects associated with geologic and seismic hazards, such as fault rupture, seismic groundshaking, liquefaction, lateral spreading, subsidence, landslides or expansive soils. Thus, the Project's less than significant impact associated with geology and soils would be avoided, and no impact would occur. Although the Project's impacts would be less than significant, potential impacts of Alternative 1 would be less than under the Project.

Greenhouse Gas Emissions

There would be no new development or operations on the Project Site, so the only new greenhouse gas (GHG) emissions would be in relation to limited weed abatement and maintenance of the Project Site. As such, impacts associated with global climate change would be minimal under Alternative 1. Potential impacts would be less than those of the Project.

Hazards and Hazardous Materials

Under Alternative 1, construction of new permanent buildings and associated grading activities would not occur. Thus, Alternative 1 would not result in potential construction-related impacts associated with

hazardous materials use, uncovering of unknown subsurface soil contamination, uncovering of unknown USTs, or development in proximity to abandoned water wells. No impacts would occur, and the less than significant impacts that would occur under the Project would be avoided.

Alternative 1 would not introduce new residential uses on the Project Site. Although the Project Site is vacant, there is some limited weed abatement and maintenance that does occur on the Project Site. These would continue under this alternative. Thus, operations under Alternative 1 would not result in an increase in potential hazards. No impacts would occur, and the Project's less than significant impacts would be avoided.

The Project Site is located within a Very High Fire Hazard Severity (VHFHS) Zone. However, as no new development would occur under Alternative 1, no new structures or associated population would be exposed to potential fire hazards. No impacts would occur, and the Project's less than significant impacts would be avoided. Therefore, impacts under the No Project/No Development Alternative would be less than the Project.

Hydrology

Under Alternative 1, the existing uses on the Project Site would remain and no new development would occur. Alternative 1 would not introduce new impervious surfaces, new landscaped areas, or drainage improvements. As no new detention basins or drainage linkages would be constructed to stabilize or improve conditions on the Project Site, hydrology impacts could be greater under this alternative. Although the No Project's impacts would be less than significant, potential impacts would be greater than those of the Project, which includes the development of five detention basins, four debris basins, and other improvements that will enhance downstream flood control and water quality.

Water Quality

Under Alternative 1, the existing uses on the Project Site would remain and no new development would occur. Alternative 1 would not introduce new impervious surfaces, new landscaped areas, or drainage improvements. As discussed above, under this alternative downstream water quality would potentially continue to degrade. Although the No Project's impacts would likely be less than significant, potential impacts would be greater than those of the Project.

Land Use and Planning

Under Alternative 1, the existing physical conditions of the Project Site would remain unchanged. No development would occur on the Project Site. The Project's requested discretionary actions, including

General Plan Amendments to the Circulation and Land Use Elements, rezoning of the site from AE-40 to Hitch Ranch Specific Plan, a vesting tentative tract map, Residential Planned Development Permit(s), and tree removal permits would not be required.

With regard to land use compatibility, Alternative 1 would not introduce new uses or new development on the Project Site. Thus, Alternative 1 would not affect existing on- or off-site land uses or existing land use relationships on the Project Site or the surrounding area. Therefore, no impacts relative to land use compatibility would occur. Although Project impacts would be less than significant, potential impacts associated with Alternative 1 would be less than those of the Project.

Noise

Under Alternative 1, construction of new permanent buildings and associated infrastructure improvements would not occur. Thus, no noise impacts associated with short-term construction would occur. Thus, the less than significant short-term noise impacts associated with construction activities would be avoided.

Under Alternative 1, no development would occur on the Project Site, no increase in traffic would occur, and no new noise sources would be introduced. As such, noise levels would remain at existing levels and no new or increased sources of noise within the project vicinity would occur as a result of Alternative 1. Therefore, Alternative 1 would result in a reduction of operational noise impacts as compared to the Project's less than significant operational noise impacts. Finally, Alternative 1 would not result in any vibration impacts during either construction or operation, and thus vibration impacts would be less than the Project's less than significant impacts.

Population and Housing

Under the No Project Alternative, no new construction would occur on the Project Site. No significant impacts related to population and housing have been identified under the Proposed Project. Therefore, impacts related to population and housing associated with the No Project Alternative would have less impact than the Proposed Project's less than significant impacts.

Public Services

Fire Service

Alternative 1 would not result in new development or land uses and thus would not increase the population on the Project Site or generate an associated increase in calls for fire protection and emergency medical services by the Ventura County Fire Department (VCFD). Therefore, the demand

for fire protection and emergency medical services in the area would remain generally unchanged from existing conditions. However, Project benefits such as construction of the extensions of Meridian Hills Drive, North Hills Parkway, High Street, Casey Road, and 'A' Street, which would provide additional emergency access and evacuation routes, would not be provided. Nonetheless, although Project impacts would be less than significant, such impacts would be less under Alternative 1.

Law Enforcement Service

Alternative 1 would not result in new development or land uses and thus would not increase the population on the Project Site or generate an associated increase in calls for law enforcement services by the Ventura County Sheriff's Department (Sheriff's Department). Therefore, the demand for law enforcement services in the area would remain generally unchanged from existing conditions. Although Project impacts would be less than significant, such impacts would be avoided under Alternative 1.

Schools

Alternative 1 would not result in new development or land uses and thus would not increase the population on the Site resulting in additional school age children in the neighborhood. Therefore, the demand for school services in the area would remain generally unchanged from existing conditions. Although Project impacts would be less than significant, such impacts would be avoided under Alternative 1.

Library Service

Alternative 1 would not result in new development or land uses and thus would not increase the population on the Project Site or generate an associated increase in the need for library services in the neighborhood. Therefore, the demand for library services in the area would remain generally unchanged from existing conditions. Although Project impacts would be less than significant, such impacts would be avoided under Alternative 1.

Recreation

Alternative 1 would not result in new development or land uses and thus would not increase the population on the Project Site or generate an associated increase in the need for recreational areas in the neighborhood. Therefore, the demand for recreational services in the area would remain generally unchanged from existing conditions. However, the Project would provide a new approximately 6.77-acre

public park, four private recreation areas, and four and one-half miles of public multi-use trails connecting to local and regional trails in the surrounding hills, that would not be developed under Alternative 1. Nonetheless, although Project impacts would be less than significant, such impacts would be avoided under Alternative 1.

Transportation

No increase in traffic would result from Alternative 1 due to construction-related trips on the local or regional street system. Although construction-related traffic impacts under the Project would be less than significant with implementation of traffic management controls where necessary, the alternative would not result in any construction-related traffic impacts. Therefore, the impact of Alternative 1 would be less than that of the Project.

Since no new development or changes in land use would occur under Alternative 1, no increase in operational traffic would occur. Although Project impacts after mitigation would be less than significant (as related to City of Moorpark criteria), such impacts would be avoided under Alternative 1.

Tribal Cultural Resources

The No Project/No Build Alternative would not require ground disturbing activities during construction. Thus, no impacts to Tribal Cultural Resources would occur under this Alternative. No known Tribal Cultural Resources have been identified within the Project Site or vicinity; however, in case of inadvertent discovery of resources, mitigation measures have been prescribed to reduce any potential impacts to a less than significant level. . Because the No Project/No Build Alternative would have no impact with respect to Tribal cultural resources and no potential to encounter previously unknown Tribal Cultural Resources, impacts would be less under this Alternative compared to the Project.

Utilities

Water Supply

Under Alternative 1, new demand for domestic water would not be generated, and new water supply and distribution improvements would not be constructed. No water would be necessary for the Project Site, as the site would remain vacant. Therefore, although Project impacts would be less than significant, such impacts would be less under Alternative 1.

Wastewater

Under Alternative 1, new wastewater flows would not be generated, as the Project Site would remain vacant. Although Project impacts would be less than significant, such impacts would be avoided under Alternative 1.

Solid Waste

Under Alternative 1, construction of new permanent structures and associated infrastructure improvements would not occur. Therefore, no construction debris or waste would be generated for disposal at a County inert landfill. No impacts would occur, and the Project's less than significant impacts would be avoided.

Since no new development would occur and existing on-site uses would remain under Alternative 1, solid waste generation associated with operation of Alternative 1 would remain consistent with existing levels. Although Project impacts would be less than significant, such impacts would be avoided under Alternative 1.

Wildfire

The Project Site is in a Very High Fire Hazard Severity Zone (VHFHSZ). Alternative 1 would not result in new development or land uses. Although Project impacts would be less than significant, such impacts would be avoided under Alternative 1. However, under this alternative no improvements to slope stability, on- and off-site drainage and flood control improvements, or roadway connectivity would occur.

4.3.3 Relationship of the Alternative to the Project Objectives

The No Project Alternative does not meet any of the basic project objectives, which are set forth in this EIR in **Section 2.0, Project Description**. Project objectives not met or impeded by the No Project Alternative are listed below.

- Develop the project site with a financially feasible, residential project that meets the residential needs of the City of Moorpark.
- Provide residential development consistent with 2021-2023 City Council Goal 1: Identify options and solutions to barriers for housing for all economic and age ranges.
- Create a new community neighborhood that would allow for residential development, while preserving natural resources and open space.

- Contribute to the enhancement of Downtown High Street by providing a new residential customer base, bicycle, vehicle, and pedestrian connections to the downtown.
- Provide a range of housing opportunities with varying densities, types, styles, prices, and tenancy characteristics (for sale versus rental).
- Help to achieve Housing Element goals for affordable housing.
- Avoid leapfrog development and accommodate projected growth in a location, which is adjacent to existing infrastructure, urban services, and community facilities.
- Locate housing next to jobs and in close proximity to transit in order to reduce Vehicle Miles Traveled (VMT).
- Transition development within the Project site with consideration for natural resource areas and open space.
- Provide development and transitional land use patterns that supports surrounding land uses.
- Designate sites for needed public facilities including flood control facilities, regional roadways, and trails.
- Provide residential opportunities to respond to economic and market conditions over several years.
- Provide a tax base to support public services associated with the proposed development to appropriately offset development impacts to city services.
- Retain open space and natural vegetation to exist as a buffer between on-site land uses and the surrounding resources to the extent possible while providing fire protection to the proposed land uses.
- Improve safe and adequate vehicle circulation within the regional area.
- Provide pedestrian, bicycle and equestrian trails that connect to the local and regional trail systems in the surrounding hills.
- Promote water conservation through use of drought-tolerant, fire-resistive, and native plants as appropriate.

4.4 ALTERNATIVE 2: RPD 20U-N-D ALTERNATIVE

4.4.1 Description

This alternative assumes development in accordance with the City's current General Plan designation (Specific Plan 1) and Zoning regulations (AE, 1 dwelling unit/40 acres, and RPD 20U-N-D, 20 dwelling units/acre).

As shown on **Figure 4.0-1, Alternative 2 – RPD 20U-N-D Alternative**, this alternative would develop 468 Low and Very Low-Income Rental Units, and five (5) 40-acre parcels for the development of single-family units (473 total units) consistent with the current zoning. This Alternative would necessitate that the City purchase the approximately 26-acre portion of the Project site zoned RPD 20U-N-D from the Project Applicant to build out the infrastructure improvements and dwelling units for affordable housing project and detention basin. This is a reduction in 282 housing units and approximately 931 fewer residents.

This Alternative is evaluated to identify alternate development that could take place on the Project Site without the application for any discretionary actions requiring approval from the City, as a practical result of the Project's non-approval.

This Alternative would reduce the number of proposed dwelling units by 282 when compared to the Project. Alternative 2 would accommodate approximately 1,561 residents (calculated as 3.3 persons per dwelling), approximately 931 fewer residents. The infrastructure improvements for this Alternative would include private access roadways and utility extensions for the five single family residential properties, a Casey Road/'A Street', High Street loop, and the 'Basin 3' detention basin. This Alternative would not include public park/recreation facilities, the extension of North Hills Parkway, or Meridian Hills Drive, and would not provide the additional circulation elements of 'A Street' north of Casey Road, and High Street west of 'A Street'. The Applicant would satisfy recreation/park space obligations solely through payment of Quimby fees.

For purposes of this analysis, it is assumed that no further project approvals would be necessary to implement Alternative 2.

4.4.2 Impact Evaluation

Aesthetics

Implementation of Alternative 2, RPD 20U-N-D, would significantly alter the visual characteristics of the site. Grading activities would affect the eastern third of the significant ridgelines that transverse the Specific Plan site. The westernmost viewshed (Open Space) would be generally unaffected by

development; under this Alternative this portion of the Specific Plan site would be retained as open space. The central area between Gabbert Road and "A" Street would have limited grading as viewed from the Poindexter Avenue location. The easterly third of the Project site would be converted from undeveloped open space to the development as provided for by the Specific Plan. Existing vacant land within the Specific Plan would be developed with residential, and recreational uses that would be visible. As a result of the implementation of the Specific Plan, this Alternative would have a significant impact to this viewshed.

Surrounding Views

View looking West Along Casey Road. The site development to the north of Casey Road involves slope grading for Casey Road with associated landscaping; the development of 468 multi-family units in three-story building east of "A" Street and south of Casey Road.

Views from Poindexter Park, East of Gisler Road, South of Poindexter Avenue. Views would include the completion of manufactured slopes along the south portions of the site in Planning Areas 4 and the completion of a detention basin north of Poindexter Avenue and the High Street extension, along with later stages of initial improvements and additional grading of the upper portion of slopes. Landscaping improvements surrounding the detention basins north of Poindexter Avenue and multi-family units in Planning Area 4 would be visible.

Views looking East from Gabbert Road. No development is proposed to occur at the Gabbert Road and Poindexter Road under Alternative 2. North Hills Parkway would not be graded or constructed. Only two single-family residences would be built in the southwesterly 80 acres that are between Gabbert Road and "A" Street. The grading and three-story multi-family buildings identified above for Planning Area 4 would be approximately one-half mile to the east of this viewing location and would remain highly visible.

Hillside Management Ordinance

The intent of the Hillside Management Ordinance (Chapter 17.38 of the Moorpark Municipal Code) is to implement the goals and policies of the *City of Moorpark General Plan*, as they relate to the development and resource management in hillside areas of the City. The directive of the Hillside Management Ordinance is to allow for "orderly and sensitive development of hillside areas in conjunction with the preservation of natural open space." **Figure 3.1-11, Slope and Ridgeline Map**, illustrates the slopes and prominent ridgeline area on the Project site. The Project site is comprised of approximately 183.2 acres with slopes less than 20 percent slopes, approximately 58.1 acres with slopes between 20 to 35 percent, approximately 27.6 acres with slopes between 35 to 50 percent, and approximately 8.4 acres with slope

greater than 50 percent. Overall, the approximately 277.30-acre Project site has an average slope of 19 percent. In general, grading of the Alternative 2 site would involve the mass grading and cut and fill over one million cubic yards of earth, which would be balanced on site. Maximum cut slopes would be approximately 70 feet high, and maximum fill areas would be approximately 75 feet high. Approximately 50 acres (18 percent) of the Project site would be graded under of implementation of Alternative 2 approximately 227 acres (82 percent) of the Project site would remain undisturbed.

Accordingly, Alternative 2 does not intend to disturb some of the steeper areas of the site, specifically the area west of "A" Street (Areas A, C & E on **Figure 3.1-12, Hillside Grading Area Identification Map)** and the area north of Planning Area 1 (Area B on **Figure 3.1-12, Hillside Grading Area Identification Map**).

Generally, the steeper slopes on the site which are being disturbed are relatively minor intermediate ridge spurs within the site shown in Grading Area D. Most of the "prominent" ridgelines and landforms are retained.

Section 17.38.030.B exempts properties with 20% or greater slopes when those slopes are associated with minor drainage courses that do not impact significant natural drainage patterns or ridgelines.

From a visibility/view perspective, most of the "prominent" slopes or ridgelines are preserved; including the larger slopes north of Planning Area 1 (Area B on **Figure 3.1-12, Hillside Grading Area Identification Map**), the larger slopes west of "A" Street (Areas A, C and E on **Figure 3.1-12, Hillside Grading Area Identification Map**), and the existing ridgeline/knoll southwest of Planning Area 2 (Area C on **Figure 3.1-12, Hillside Grading Area Identification Map**).

Much of the site was graded for ranching and farming purposes sometime in the last century so most impacts to the existing topography are not impacts to natural slopes because the natural grade has long since been disturbed.

Most of the impacts to existing topography within Planning Areas 1 & 2 are generally in areas with existing slope gradients less than 20%. Some of the more noteworthy impacts to existing slopes with gradients greater than 20% are within Planning Areas 3 & 4 on the east side of the site. However, there are a few considerations which limit the applicability of the ordinance in these areas:

As mentioned, many of these are smaller and more localized areas that likely do not qualify as "prominent" landforms (most of the impacts actually just involve filling-in existing local valleys so visual impacts are much less significant than significant cuts to ridgelines). Filling-in local valleys/ravines is permissible per Section 17.38.090.

These impacts are in denser planning areas which is generally in-line with the intent of the ordinance-increase density in one area to minimize impacts on the rest of the site where more prominent landforms are located.

A key reason for the fills in Planning Area 4 (Area D on **Figure 3.1-12, Hillside Grading Area Identification Map**) is to support Detention Basin 3, which provides a regional benefit by diverting significant quantities of storm water runoff from Walnut Canyon Channel so that existing downstream flood control infrastructure is not overwhelmed.

The Specific Plan would provide remedial measures to reduce erosion and geologic hazards; limit the alteration of visible ridgelines; preserve natural drainages; develop the densest portions of the site in the flatter portions of the site; and use native vegetation for replanting and other water-conserving techniques. In addition, the project would incorporate landscape intended to transition developed areas from natural open space areas, as well as provide buffering of views of the reduced footprint Alternative 2 site from surrounding land uses.

Under Alternative 2 North Hills Parkway is not proposed to be constructed. Further, "A" Street would not extend north of Casey Road, the Meridian Hills Drive connector would not be graded or built, and High Street would not extend westerly of "A" Street. It should be noted that construction of the North Hills Parkway and other General Plan Circulation Element roadways within Hitch Ranch, with or without development of the Specific Plan, would result in significant encroachments to the slopes greater than 20 percent. Under Alternative 2 more than 50 percent of the site with slopes of 35 to 50 percent would be retained in dedicated open space; the Hillside Management Ordinance requires 50 percent. The 50 percent or greater slope areas proposed for development are small, isolated areas that would be graded as part of the development plan. In addition, like the Project, Alternative 2 includes the preservation the prominent ridgeline on the site. Preservation of this area is consistent with the Hillside Management Ordinance requirements.

Silhouetting

A review of plans indicates that the proposed development would be built below higher ridgelines that occur off site to the north. However, from Viewing Locations A, B, and C, development is proposed either above the viewer or at a similar elevation. Therefore, project elements viewed in the foreground would obscure the higher and more distant hills and appear as silhouettes or a form of ridgeline development. This condition would apply where the northern margin of Planning Area 4 is observed from Viewing Location A, where the southern margin of Planning Area 4 is viewed from Viewing Location B, and where Planning Area 4 is viewed in the distance from Viewing Location C.

Given the change in the visual character of the site, and that background visual features would be removed and replaced with the silhouettes of the new homes, impacts to the visual resource environment would be considered significant when measured against this assessment criterion.

Landform Alterations

Terrain on the Project site consists of low hills and broad channel areas. Project construction would require substantial grading that would result in the creation of one large, generally flat pad areas. Given the substantial change in the site's existing landform from a natural rolling terrain to a "super pads," impacts to the visual resource environment would be considered significant when measured against this assessment criterion.

Effects on Views from Surrounding Residences

Views from residential areas are emphasized here for several reasons. First, many residences are directly oriented towards the Project site. Second, vistas of and across the site can be considerable. Third, the impact associated with project implementation (for these residents) would likely be the greatest alteration to their existing environmental condition. Last, residents with views of the site requested that this issue be evaluated during the project scoping meeting.

Residences South of Poindexter Avenue. Most homes south of Poindexter Avenue are oriented away from the site. Where visible, project elements that would be observable include (proceeding from east to west) (1) the contour-graded manufactured slope that occurs north of detention basin 1, (2) the high-density residential structures proposed as part of Planning Area 4, and (3) the contour graded slopes and natural open space that occurs south and west of the Planning Area 4.

Because most homes from this viewing location are not oriented towards the site, and rear yard walls preclude most vistas of the site, no significant impacts from this location are expected.

Residences to the North. New construction with residential uses are located north of the Project site; some of these have partial vistas of the Project site. Project elements that may be visible include residential development in Planning Area 4.

Homes from this viewing location are oriented towards the site with no rear yard walls to obstruct vistas of the site, however, due to the distance (over one-half mile) and lower elevation of the Planning Area 4 development, impacts associated with Alternative 2 visibility to this residential viewing audience are not considered significant.

Residences to the West. Residences to the west of the Project site are at elevations similar to those found within the Project site and would thus have views into the Project site. Areas of the Alternative 2 site adjacent to these residences are planned to be preserved as open space, which would reduce the potential for impacts to views from this location. The Project site's topography would further obscure project development from view, and no significant impacts from this location are expected.

Residences to the South and East. Residences to the east of the project occur at a lower elevation and residents would have no direct vistas of the project. Therefore, these residents would not be directly impacted by the project. Residents to the east of the site would observe an incremental change in the existing condition. However, developments would be observed as an incremental encroachment of development into the lower hillsides that is not out of character with existing development practices in the City and are not considered significant.

As with the Proposed Project, all of the proposed mitigation measures to reduce potential impacts to Aesthetics would be implemented. However, although the impacts associated with Alternative 2 would be less than those of the Project, potential impacts to scenic vistas would remain significant and unavoidable.

SOURCE: Comstock Homes, 2021.

FIGURE **4.0-1**

IMPACT SCIENCES

Alternative 2 – RPD 20U-N-D Alternative

1318.004•06/2021

Air Quality

Alternative 2 would alter far less of the Project Site's existing condition due to a reduced need for grading for infrastructure and housing construction, and would result in the construction of 282 units fewer of housing shortening the construction duration, resulting in the generation of less construction air pollutant emissions. In addition, all of the proposed mitigation measures to reduce potential impacts to air quality would still be implemented. Therefore, similar to the Proposed Project, construction impacts to air quality would be less than significant.

This alternative consists of an approximately 37 percent reduction in the number of residential units as compared to the Proposed Project. Therefore, it is reasonable to assume that operational air pollutant emissions would be reduced in a generally proportionate fashion. However, using similar metrics used to calculate the Proposed Project's operational emissions, it appears that Alternative 2 would also result in a significant and unavoidable operational impact because ROC emissions would still be above the threshold of 25 pounds per day.

Estimated Project Daily Emissions at Buildout – Alternative 2

	Emissions in Pounds per Day					
Emissions Source	**ROC**	**NO_x**	**CO**	**SO_x**	**PM10**	**PM2.5**
Emissions Totals	26	12	117	< 1	18	5
Recommended Threshold	25	25	—	—	—	—
Exceeds Threshold?	**Yes**	**No**	—	—	—	—

Biological Resources

Alternative 2 would alter far less of the Project Site's existing condition due to the lessened need for grading to install infrastructure (flood control basins, roadways, utilities, etc.), and 282 fewer units of housing construction; further, construction could largely avoid areas where biological resources and sensitive habitats exist. In addition, all of the proposed mitigation measures to reduce potential impacts to the existing on-site plant communities (including sensitive plant species), wildlife species (including sensitive wildlife species), nesting birds, protected trees, "waters of the US/waters of the State" under jurisdiction of the US Army Corps of Engineers (USACE) and/or the Regional Water Quality Control Board (RWQCB), or streambed or habitat under the jurisdiction of the California Department of Fish and

Wildlife (CDFW) would still be implemented. Although the Project's impacts would be less than significant, potential impacts associated with Alternative 2 would be less than those of the Project.

Cultural Resources

Alternative 2 would alter far less of the Project Site's existing condition due to a reduced need for grading for infrastructure and housing construction, and would result in the construction of 282 units fewer of housing. Nonetheless, as the Project Site is vacant, there are no historical resources within or adjacent to the Project Site. Thus, similar to the Project, no impacts to historic resources would occur under Alternative 2. Such impacts would be similar to those under the Project.

Alternative 2 would have a reduced need for grading for infrastructure and housing construction, and would result in reduced earthmoving activities. Thus, Alternative 2 would have a lessened potential for uncovering archaeological resources or previously unknown human remains; however, the inadvertent discovery of archaeological resources or previously unknown human remains would still be considered a significant impact. Under the Project, impacts associated with the potential discovery of unknown archaeological resources or previously unknown human remains would be less than significant with implementation of mitigation measures, and these same measures would be implemented under Alternative 2. Therefore, similar to the Proposed Project, potential impacts under Alternative 2 would be less than significant.

Energy

Under Alternative 2, the number of new housing units would be reduced by 282 units, resulting in 998 fewer residents residing on the Project Site. Therefore, demand for electricity and natural gas would less than that of the Proposed Project. Although the Project's impacts would be less than significant, potential impacts associated with Alternative 2 would be less than those of the Project.

Geology and Soils

Alternative 2 would alter portions of the Project Site for infrastructure improvements and housing construction, although to a much lesser extent than the Proposed Project. Implementation of the Alternative 2 would require grading activities to lessen impacts related to slope instability, sedimentation, and erosion. Furthermore, Alternative 2 could expose additional people and/or structures to potential adverse effects associated with geologic and seismic hazards, such as fault rupture, seismic groundshaking, liquefaction, lateral spreading, subsidence, landslides or expansive soils, although to a lesser extent than the Proposed Project. Under the Project, impacts associated geology and soils would be less than significant with implementation of mitigation measures, and these same measures would be

implemented under Alternative 2. Although the Project's impacts would be less than significant, potential impacts of Alternative 2 would be less than under the Project.

Greenhouse Gas Emissions

Under Alternative 2, the number of new housing units would be reduced by 282 units, resulting in 998 fewer residents residing on the Project Site. Therefore, greenhouse gas (GHG) emissions would be less for both construction and operation of Alternative 2. Although the Project's impacts would be less than significant, potential impacts of Alternative 2 would be less than under the Project.

Hazards and Hazardous Materials

Under Alternative 2, construction of 468 units of housing and associated grading activities would occur. However, similar to the Project, all potentially hazardous materials transported, stored, or used on-site for construction purposes and subsequently for the upkeep of public facilities, parkland and open space areas by the construction contractors, and subsequent homeowners, would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable County, state, and federal regulations governing such activities. With contractor and resident compliance with the County, state and federal regulations, impacts related to accidental release or upset due to the use of hazardous materials or hazardous waste disposal by the construction and operation under Alternative 2 would be less than the Project due to less grading and fewer housing units, and less than significant.

Similar to the Project, Alternative 2 would result in an increase in population at the Project Site, and there would be a corresponding increase in the need for fire protection services, including paramedic services. The proposed residential uses are expected to create the typical range of fire service calls that other such uses create, including kitchen/house fires, garbage bin fires, car fires, electrical fires, etc. Impacts associated with the additional residents include an increase in the number of fire department responses, routine fire prevention life/safety inspections, public education activities and participation in community events. While fire service impacts would be less than significant under both the alternative and the Project, due to the reduced population under the alternative, impacts would be incrementally less when compared to the Project.

The Project Site is located in a VHFHS Zone. Therefore, similar to the Project, development under this alternative would be subject to various governmental codes, guidelines, and programs aimed at reducing the potential fire hazard risks to an acceptable level; including, but not limited to, County of Los Angeles Fire Code Section 1117.2.1 which includes building standards and landscape criteria for all new construction relating to fuel modification planning to help reduce the threat of fires in high hazard areas. Both the Project and the alternative would result in less than significant impacts with respect to location

in a fire hazard zone. However, due to the reduction in the number of residential structures in the zone, impacts associated with the alternative would be incrementally less when compared to the Project. For these reasons, Alternative 2 would result in impacts similar to the Project, although incrementally reduced, with respect to hazards and hazardous materials.

Hydrology

Alternative 2 would vastly reduce the approximately 198.7 acres (72 percent) of the Project Site that would be graded, and covered with impervious surfaces associated with the Project. As such, there would be more opportunities for infiltration with this alternative. As with the Project, urban runoff that is generated under this alternative would be conveyed and discharged into the local storm drain system. However, under Alternative 2 only one new detention basin (Basin 3) would be constructed to stabilize or improve conditions on the Project Site, and hydrology impacts could be greater under this alternative. Although the Alternative 2's impacts would be less than significant, potential impacts would be greater than those of the Project, which includes the development of five detention basins, four debris basins, and other improvements that will enhance downstream flood control and water quality.

Water Quality

Alternative 2 would introduce new impervious surfaces, new landscaped areas, and some minor drainage improvements. As discussed above, under this alternative downstream water quality could potentially continue to degrade. Although Alternative 2's impacts would be less than significant, potential impacts would be greater than those of the Project.

Land Use and Planning

Under Alternative 2, no discretionary actions would be required.

With regard to land use compatibility, Alternative 2 would introduce new development on the Project Site, however the multi-family housing would be clustered at the southeast corner of the site, where there is more urbanized development, and only five single family homes would be scattered across the remaining over approximately 200 acres of the site. Thus, Alternative 2 would not affect existing on- or off-site land uses or existing land use relationships on the Project Site or the surrounding area. Therefore, less than impacts relative to land use compatibility would occur. Although Project impacts would be less than significant, potential impacts associated with Alternative 2 would be less than those of the Project.

Noise

Under Alternative 2, construction of new permanent buildings (468 units of multi-family housing and five units of single-family housing), and associated infrastructure improvements would occur, but to a much lesser degree. Thus, noise impacts associated with short-term construction would occur. However, as with the Project, impacts associated short-term construction noise would be less than significant with implementation of mitigation measures, and these same measures would be implemented under Alternative 2.

Under Alternative 2, development of 468 units of multi-family housing and five units of single-family housing would occur on the Project Site, and an increase in traffic over existing conditions would occur. The vehicles accessing the existing roadway network have the potential to increase ambient noise levels in the project vicinity. According to Caltrans, vehicle noise emissions increase with speed, and increased traffic volumes increase traffic noise; however, it takes a doubling of traffic to increase noise levels by only 3 dB(A).[1] Further, given the immediate proximity of the Moorpark Metrolink station to PA4 where the bulk of the development would occur under Alternative 2, a shift in mode share from drive alone commutes to rail transit is appropriate. As shown in **Table 3.11-6, Project Traffic Noise Level Increases** the increase in noise levels along all study roadways would range from 0.0 to 5.1 dB(A) CNEL. The largest increase of 5.1 dB(A) CNEL would be on Gabbert Road north of Poindexter Avenue but would not result in a noise level that exceeds the City's 65 dB(A) exterior noise level standard, and would not be considered significant. Alternative 2 would result in a reduction of operational noise impacts as compared to the Project's less than significant operational noise impacts due to the reduction of housing units and traffic noise. Finally, similar to the Proposed Project, Alternative 2 would implement mitigation measures to reduce vibration impacts during construction, and thus vibration impacts would be less than the Project's less than significant impacts.

Population and Housing

No significant impacts related to population and housing have been identified under the Proposed Project. Alternative 2 would reduce the number of on-site housing units by 282 units, and the on-site population by approximately 998 residents. Therefore, impacts related to population and housing associated with Alternative 2 would have less impact than the Proposed Project's less than significant impacts.

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1 Caltrans, *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* September 2013.

Public Services

Fire Service

Alternative 2 would result in new development and thus would increase the population on the Project Site and generate an associated increase in calls for fire protection and emergency medical services by the Ventura County Fire Department (VCFD). However, the demand for fire protection and emergency medical services in the area under Alternative 2 would be less the that of the Proposed Project given the 37 percent reduction in housing units and on-site population, and in addition, as with the Proposed Project, Alternative 2 would implement mitigation measures to further reduce potential impacts. It should also be noted that some Project benefits such as construction of the extensions of Meridian Hills Drive, North Hills Parkway, and High Street, which would provide additional emergency access and evacuation routes, would not be provided under Alternative 2. Nonetheless, although Project impacts would be less than significant, such impacts would be less under Alternative 2.

Law Enforcement Service

Alternative 2 would result in new development and thus would increase the population on the Project Site and could generate an associated increase in calls for law enforcement services by the Ventura County Sheriff's Department. Therefore, the demand for law enforcement services in the area could increase from existing conditions. However, the demand for law enforcement services in the area under Alternative 2 would be less the that of the Proposed Project given the 37 percent reduction in housing units and on-site population, and in addition, as with the Proposed Project, Alternative 2 would implement mitigation measures to further reduce potential impacts. It should also be noted that some Project benefits such as construction of the extensions of Meridian Hills Drive, North Hills Parkway, and High Street, which would provide additional emergency access and evacuation routes, would not be provided under Alternative 2. Nonetheless, although Project impacts would be less than significant, such impacts would be less under Alternative 2.

Schools

Alternative 2 would result in new development and thus would increase the population on the Site resulting in additional school age children in the neighborhood. Therefore, the demand for school services in the area would increase from existing conditions. However, similar to the Proposed Project, payment of the developer fees mandated under School Facilities Act (Government Code Section 65995) would mitigate Alternative 2 impacts on the Moorpark Unified School District. This

funding would offset the costs to construct new schools necessary to house the additional students generated by Alternative 2 and impacts would be less than significant.

Library Service

Alternative 2 would result in new development and thus would increase the population on the Site resulting in additional population in the neighborhood. Therefore, the demand for library services in the area would increase from existing conditions. However, similar to the Proposed Project, project applicant would be required to pay library facilities fees to the City of Moorpark, in effect at the time of and prior to the issuance of building permits. The City would use the fees for the purposes of improving library facilities to meet the increased demand on library services generated by Alternative 2 and impacts would be less than significant.

Recreation

Alternative 2 would result in new development and thus would increase the population on the site and generate an associated increase in the need for recreational areas in the neighborhood. The Proposed Project would provide a new approximately 6.77-acre public park, four private recreation areas, and four and one-half miles of public multi-use trails connecting to local and regional trails in the surrounding hills; none of these facilities would be developed under Alternative 2. Under Alternative 2, the Applicant would satisfy recreation/park space obligations solely through payment of Quimby fees. As such impacts related to recreation would be less than significant under Alternative 2.

Transportation

An increase in traffic would result from Alternative 2 due to construction-related trips on the local or regional street system, albeit far less that the Proposed Project, due to the reduced amount of grading and construction proposed under Alternative 2. Construction-related traffic impacts under the Project would be less than significant with the implementation of traffic management controls where necessary, and Alternative 2 would implement these same controls. Therefore, as with the Proposed Project, the impact of Alternative 2 due to construction-related trips would be less than significant.

Under Alternative 2, the number of new housing units would be reduced by 282 units, resulting in 998 fewer residents residing on the Project Site. Therefore, vehicle miles traveled (VMT) by project residents would less than that of the Proposed Project. Further, Project impacts (as related to City of Moorpark criteria) would be less than significant after mitigation; Alternative 2 would implement the same mitigation as required that for the Proposed Project and impacts would be less than significant.

Tribal Cultural Resources

Alternative 2 would have a reduced need for grading for infrastructure and housing construction, and would result in greatly reduced earthmoving activities. Thus, Alternative 2 would have a lessened potential for uncovering Tribal Cultural Resources; however, the inadvertent discovery of Tribal Cultural Resources would still be considered a significant impact. Under the Project, impacts associated with the potential discovery of unknown Tribal Cultural Resources would be less than significant with implementation of mitigation measures, and these same measures would be implemented under Alternative 2. Therefore, similar to the Proposed Project, potential impacts under Alternative 2 would be less than significant.

Utilities

Water Supply

As discussed in **Section 3.17.2 Water Supply**, water demands for the Proposed Project were included in the water demand projections in the Ventura County Waterworks District (VCWWD) No. 1's 2016 Urban Water Management Plan (UWMP). As indicated in the VCWWD No. 1's UWMP, the District's total projected water supplies available over the next 20 years will meet the projected water demands associated with the Proposed Project and existing and other planned uses within the District's service area under most scenarios. Therefore, the impact of the Proposed Project on water supplies under normal year and multiple dry year scenarios would be less than significant. In addition, the amount of production relied upon in the supply-demand analysis to meet future demands will necessitate an expansion of treatment facilities, with or without the Proposed Project. As such, the impact on the expansion of facilities would be less than significant as well.

Under Alternative 2, new demand for domestic water would be generated, and new water supply and distribution improvements would need to be constructed. However, under Alternative 2, the number of new housing units would be reduced by 282 units, resulting in 998 fewer residents residing on the Project Site. Therefore, demand for potable water would less than that of the Proposed Project. Therefore, although Project impacts would be less than significant, such impacts would be less under Alternative 2.

Wastewater

As discussed in **Section 3.17.3 Wastewater**, VCWWD No. 1 owns, operates, and maintains the sewer collection system and wastewater treatment facility that serves the City of Moorpark and adjacent Ventura County, surrounding community, and specific plan site. The Moorpark Wastewater

Treatment Plant (MWWTP) has a design capacity of 5.0 mgd and has a state discharge permit for 1.5 mgd. The current average flow is 2.1 mgd.[2] The treatment plant is permitted to discharge directly into the Arroyo Simi. As discussed in **Section 3.17.3 Wastewater**, the existing wastewater collection and treatment system are sufficient to accommodate the Proposed Project at build-out conditions.

Under Alternative 2, new wastewater flows would be generated. The existing wastewater collection treatment system is sufficient to treat the new flows; however, new wastewater collection improvements would need to be constructed. Under Alternative 2, the number of new housing units would be reduced by 282 units on the Project Site; in addition, the location of the new housing units would be significantly different than that of the Proposed Project. The existing wastewater collection system, was determined to be sufficient to accommodate the Proposed Project area at build-out conditions. As such, given the reduced flow of Alternative 2, impacts would also be less than significant.

Solid Waste

Under Alternative 2, construction of new permanent structures and associated infrastructure improvements would occur. Therefore, construction debris and waste would be generated for disposal at a County inert landfill. However, under Alternative 2, the number of new housing units would be reduced by 282 units. As discussed in **Section 3.17.4, Solid Waste**, the Simi Valley Landfill currently has remaining capacity to handle the Proposed Project's estimated solid waste from construction activities. Therefore, construction-related solid waste generated from the development of the Proposed Project would result in a less than significant impact. As construction-generated waste from the implementation of Alternative 2 would be less than the Proposed Project, impacts would also be less than significant.

In addition, the land uses would be the same as those proposed under the Proposed Project and given the reduction in housing units, the demand for landfill capacity during operation under Alternative 2would be less than that of the Proposed Project. Therefore, impacts of Alternative 2 regarding solid waste, would be less than the Proposed Project, and would be less than significant.

Wildfire

The Project Site is in a Very High Fire Hazard Severity Zone; as discussed in **Section 3.18, Wildfire**, Project impacts would be less than significant with mitigation. As with the Proposed Projects, Alternative

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2 Scott Meckstroth, Deputy Director, Ventura County, Department of Water and Sanitation, personal communication, November 13, 2020.

2 would result in new development and land uses. However, under this alternative fewer improvements to slope stability, on- and off-site drainage and flood control improvements, and roadway connectivity would occur. Therefore, despite a lower density, this alternative would slightly increase impacts related to Wildfire.

4.4.3 Relationship of the Alternative to the Project Objectives

The RPD 20U-N-D Alternative does not meet most of the basic project objectives, which are set forth in this EIR in **Section 2.0, Project Description**. Project objectives not fully met or impeded by the RPD 20U-N-D Alternative are listed below.

- Develop the project site with a financially feasible, residential project that meets the residential needs of the City of Moorpark.
- Provide residential development consistent with 2021-2023 City Council Goal 1: Identify options and solutions to barriers for housing for all economic and age ranges.
- Create a new community neighborhood that would allow for residential development, while preserving natural resources and open space.
- Contribute to the enhancement of Downtown High Street by providing a new residential customer base, bicycle, vehicle, and pedestrian connections to the downtown.
- Provide a range of housing opportunities with varying densities, types, styles, prices, and tenancy characteristics (for sale versus rental).
- Help to achieve Housing Element goals for affordable housing.
- Locate housing near to jobs and in close proximity to transit in order to reduce Vehicle Miles Traveled.
- Provide development and transitional land use patterns that supports surrounding land uses.
- Designate sites for needed public facilities including flood control facilities, regional roadways, and trails.
- Provide residential opportunities to respond to economic and market conditions over several years.
- Provide a tax base to support public services associated with the proposed development to appropriately offset development impacts to city services.

- Improve safe and adequate vehicle circulation within the regional area.
- Provide pedestrian, bicycle and equestrian trails that connect to the local and regional trail systems in the surrounding hills.

4.5 ALTERNATIVE 3 – 415 UNIT REDUCED VISUAL IMPACT ALTERNATIVE

4.5.1 Description

In an effort to reduce the Proposed Project's significant and unavoidable visual impacts, Alternative 3, 415 Unit Reduced Visual Impact, would include the construction of 415 single-family residential dwelling units, organized to avoid development on the most southerly, and publicly visible, areas of the Project Site. The Alternative would include 100 single-family units in Planning Area 1, 100 single-family units in Planning Area 2 east, 150 single-family units in Planning Area 3, and 65 single-family units in Planning Area 4 north. This alternative would provide infrastructure improvements in the form of detention basins (2, 2A, 2B, and 3), and the extension of North Hills Parkway up to Gabbert Road.

No affordable housing units would be provided under this alternative, as that parcel would be developed with single family housing. Further, the approximately 6.77-acre public park area (proposed under the Project on the southern edge of the specific plan area, along the High Street frontage), would not be included under this alternative.

In addition, Alternative 3 not would provide for the extension of High Street beyond 'A Street', or provide a connection to Meridian Hills Parkway. The Applicant would satisfy recreation/park space obligations solely through payment of Quimby fees.

This Alternative would reduce the number of proposed dwelling units by 300 when compared to the Project. Alternative 3 would accommodate approximately 1,469 residents (calculated as 3.54 persons per dwelling), approximately 1,204 fewer residents.

Figure 4.0-2, Alternative 3 415 Unit Reduced Visual Impact - Land Use Plan, shows the proposed configuration of this alternative and specific plan statistical summary.

4.5.2 Impact Evaluation

Aesthetics

Implementation of Alternative 3, 415 Unit Reduced Visual Impact, would significantly alter the visual characteristics of the site. Grading activities would affect the eastern third of the significant ridgelines that

transverse the site. The westernmost viewshed (Open Space) would be generally unaffected by development; under this Alternative this portion of the Specific Plan site would be retained as open space. The central area between Gabbert Road and "A" Street would have limited grading as viewed from the Poindexter Avenue location, even though there would be development within the northeastern portion of Planning Area 2, obstructed by the development within Planning Area 4. The easterly third of the Project site would be converted from undeveloped open space to the development as provided for by the Specific Plan. However, as a result of moving the visible development within Planning Area 4 northerly, away from the slope above Basin 3, the buildable "super pad" of Planning Area 4 would be reduced to approximately 8-acres. This development area would still have visibility from the valley floor, but the lower profile of reduced height and density homes would reduce the visual perception of development. Existing vacant land within the site would be developed with residential, and recreational uses that would be visible. As a result, the implementation of this Alternative would have a significant impact to this viewshed.

Surrounding Views

View looking West Along Casey Road. As with the Project, the site development to the north of Casey Road involves the installation of noise walls and construction of single-family residences slope grading for Casey Road with associated landscaping; the development of three-story multi-family units east of "A" Street and south of Casey Road would also be visible. The view along Casey Road five to seven years after development under this Alternative would be similar to the Project.

Views from Poindexter Park, East of Gisler Road, South of Poindexter Avenue. Views from this vantage point would be of the completion of manufactured slopes along the south portions of the site in Planning Areas 4 and the completion of a detention basin north of Poindexter Avenue and the High Street extension, along with later stages of initial improvements and additional grading of the upper portion of slopes. Landscaping improvements surrounding the detention basins north of Poindexter Avenue and multi-family units in Planning Area 4 are shown. Approximately five-acres of natural slope would be retained between Basin 3 and the reduced development super pad of Planning Area 4. This natural slope would require re-landscaping consistent with fuel modification standards of the Ventura County Fire Protection District. Even with this reduction in grading and the setback from the top of the slope buildings would remain visible from Poindexter Park.

Views looking East from Gabbert Road. Views of Alternative 3 buildout from this vantage point would include infrastructure improvements (i.e., light standards and Basin 2 grading) along with single family residences along the newly constructed North Hills Parkway in the distance to the east.

Hillside Management Ordinance

The intent of the Hillside Management Ordinance (Chapter 17.38 of the Moorpark Municipal Code) is to implement the goals and policies of the *City of Moorpark General Plan*, as they relate to the development and resource management in hillside areas of the City. The directive of the Hillside Management Ordinance is to allow for "orderly and sensitive development of hillside areas in conjunction with the preservation of natural open space." **Figure 3.1-11, Slope and Ridgeline Map**, illustrates the slopes and prominent ridgeline area on the Project site. The Project site is comprised of approximately 183.2 acres with slopes less than 20 percent slopes, approximately 58.1 acres with slopes between 20 to 35 percent, approximately 27.6 acres with slopes between 35 to 50 percent, and approximately 8.4 acres with slope greater than 50 percent. Overall, the approximately 277.30-acre Project site has an average slope of 19 percent. In general, grading of the Alternative 3 site would involve the mass grading and cut and fill of approximately five million cubic yards of earth, which would be balanced on site. Maximum cut slopes would be approximately 70 feet high, and maximum fill areas would be approximately 75 feet high. Approximately 177 acres (64 percent) of the Project site would be graded under of implementation of Alternative 3. Approximately-100 acres (36 percent) of the site would remain undisturbed.

Accordingly, Alternative 3 does not intend to disturb some of the steeper areas of the site, specifically the area west of "A" Street (Areas A and C on **Figure 3.1-12, Hillside Grading Area Identification Map)** and the area north of Planning Area 1 (Area B **Figure 3.1-12, Hillside Grading Area Identification Map**).

Generally, the steeper slopes on the site which are being disturbed are relatively minor intermediate ridge spurs within the site shown in Grading Areas D and E. Most of the "prominent" ridgelines and landforms are retained.

Section 17.38.030.B exempts properties with 20% or greater slopes when those slopes are associated with minor drainage courses that do not impact significant natural drainage patterns or ridgelines.

From a visibility/view perspective, most of the "prominent" slopes or ridgelines are preserved; including the larger slopes north of Planning Area 1 (Area B on **Figure 3.1-12, Hillside Grading Area Identification Map**), the larger slopes west of "A" Street (Areas A and C on **Figure 3.1-12, Hillside Grading Area Identification Map**), and the existing ridgeline/knoll southwest of Planning Area 2 (Area C on **Figure 3.1-12, Hillside Grading Area Identification Map**).

Much of the site was graded for ranching and farming purposes sometime in the last century so most impacts to the existing topography are not impacts to natural slopes because the natural grade has long since been disturbed.

Some of the more noteworthy impacts to existing slopes with gradients greater than 20 percent are within Planning Areas 3 & 4 on the east side of the site. However, there are a few considerations which limit the applicability of the ordinance in these areas:

As mentioned, many of these are smaller and more localized areas that likely do not qualify as "prominent" landforms (most of the impacts actually just involve filling-in existing local valleys so visual impacts are much less significant than significant cuts to ridgelines). Filling-in local valleys/ravines is permissible per Section 17.38.090.

These impacts are in denser planning areas which is generally in-line with the intent of the ordinance-increase density in one area to minimize impacts on the rest of the site where more prominent landforms are located.

A key reason for the fills in Planning Area 4 (Area D on **Figure 3.1-12, Hillside Grading Area Identification Map**) is to support Detention Basin 3, which provides a regional benefit by diverting significant quantities of storm water runoff from Walnut Canyon Channel so that existing downstream flood control infrastructure is not overwhelmed.

Similarly, the area northeast of the intersection of Gabbert Road and North Hills Parkway (Area E on **Figure 3.1-12, Hillside Grading Area Identification Map**) requires some excavation cuts to provide sufficient volume storage for Detention Basin 2B.

It should be noted that a portion of the storage volume that will be provided within Basin 2B is for sediment/debris storage for the existing watershed northwest of the project. In the existing condition, sediment/debris storage for this existing watershed is not adequately provided. The proposed improvements will provide a regional benefit by ensuring that sediment and debris from the existing watershed is not transported downstream.

Similar to the Specific Plan, Alternative 3 would provide remedial measures to reduce erosion and geologic hazards; limit the alteration of visible ridgelines; preserve natural drainages; develop the densest portions of the site in the flatter portions of the site; and use native vegetation for replanting and other water-conserving techniques. In addition, Alternative 3 would incorporate landscape intended to transition developed areas from natural open space areas, as well as provide buffering of views of development under Alternative 3 site from surrounding land uses.

It should be noted that construction of the North Hills Parkway and other General Plan Circulation Element roadways within Hitch Ranch, with or without development of Alternative 3, would result in significant encroachments to the slopes greater than 20 percent. Under Alternative 3 Approximately 40 percent of the site with slopes of 35 to 50 percent would be retained in dedicated open space; the Hillside

Management Ordinance requires 50 percent. The 50 percent or greater slope areas proposed for development are small, isolated areas that would be graded as part of the development plan. In addition, similar to the Project, alternative 3 includes the preservation the prominent ridgeline on the site. Preservation of this area is consistent with the Hillside Management Ordinance requirements. Further, Section 17.38.030 M of the Hillside Management Ordinance allows the City to approve a Development Agreement to exempt a project from the requirements of the Ordinance. The Applicant will be requesting a Development Agreement for this project, once granted, impacts under the Hillside Management Ordinance would be less than significant.

Silhouetting

A review of plans indicates that the proposed development would be built below higher ridgelines that occur off site to the north. However, from Viewing Locations A, B, and C, development is proposed either above the viewer or at a higher or similar elevation. Therefore, project elements viewed in the foreground would obscure the higher and more distant hills and appear as silhouettes or a form of ridgeline development. This condition would apply where the edges of Planning Area 3 and 4 are observed from Viewing Location A, where the southern margin of Planning Area 4 is viewed from Viewing Location B, and where Planning Area 2 and 4 are viewed in the distance from Viewing Location C.

Given the change in the visual character of the site, and that background visual features would be removed and replaced with the silhouettes of the new homes, impacts to the visual resource environment would be considered significant when measured against this assessment criterion.

Landform Alterations

Terrain on the Project site consists of low hills and broad channel areas. Project construction would require substantial grading that would result in the creation of four large, generally flat pad areas. Given the substantial change in the site's existing landform from a natural rolling terrain to a series of "super pads," impacts to the visual resource environment would be considered significant when measured against this assessment criterion.

Effects on Views from Surrounding Residences

Views from residential areas are emphasized here for several reasons. First, many residences are directly oriented towards the Project site. Second, vistas of and across the site can be considerable. Third, the impact associated with project implementation (for these residents) would likely be the greatest alteration to their existing environmental condition. Last, residents with views of the site requested that this issue be evaluated during the project scoping meeting.

Residences South of Poindexter Avenue. Most homes south of Poindexter Avenue are oriented away from the site. Where visible, Alternative 3 elements that would be observable include (proceeding from east to west) (1) the contour-graded manufactured slope that occurs north of detention basin 1, (2) the high-density residential structures proposed as part of Planning Area 4, (3) the contour graded slopes and natural open space that occurs south and west of the Planning Area 4, and (4) the southern margins of the residential structures associated with development along the southern margin of the easterly remaining segment of Planning Area 2. Homes along the southern margin of these development areas would obscure views of homes proposed to the north.

Because most homes from this viewing location are not oriented towards the site, and rear yard walls preclude most vistas of the site, no significant impacts from this location are expected.

Residences to the North. New construction with residential uses are located north of the Project site; some of these have partial vistas of the Project site. Project elements that may be visible include (proceeding from north to south): (1) residential development in Planning Area 1, (2) a corridor for the North Hills Parkway-roadway consistent with the general plan, and (3) residential development in Planning Area 3.

Because homes from this viewing location are oriented towards the site with no rear yard walls to obstruct vistas of the site, and elements of the project would be partially visible, impacts associated with Alternative 3 visibility to this residential viewing audience are considered significant.

Residences to the West. Residences to the west of the Project site are at elevations similar to those found within the Project site and would thus have views into the Project site. As with the Project, areas of the Alternative 3 site adjacent to these residences are planned to be preserved as open space, which would reduce the potential for impacts to views from this location. The site's topography would further obscure Alternative 3 development from view, and no significant impacts from this location are expected.

Residences to the South and East. Residences to the east of the project occur at a lower elevation and residents would have no direct vistas of the project. Therefore, these residents would not be directly impacted by the project. Residents to the east of the site would observe an incremental change in the existing condition. However, developments would be observed as an incremental encroachment of development into the lower hillsides that is not out of character with existing development practices in the City and are not considered significant.

As with the Proposed Project, all of the proposed mitigation measures to reduce potential impacts to Aesthetics would be implemented. However, although the impacts associated with Alternative 3 would be less than those of the Project, potential impacts to scenic vistas would remain significant and unavoidable.

Area/Description:	Land Use:	Acres:	Dwelling Units/Gross Acre:	Number of Dwelling Units (DU):
Planning Area 1	Single Family Detached Units & Pvt. Streets	25.20		100
	Natural Open Space	17.33		
	Manufactured Slopes	18.96		
	Subtotal	**61.49**	**1.63**	**100**
Planning Area 2	Single Family Detached Units & Pvt. Streets	19.50		100
	Natural Open Space	45.43		
	Manufactured Slopes	7.90		
	Subtotal	**62.10**	**1.61**	**100**
Planning Area 3	Single Family Detached Units & Pvt. Streets	26.21		150
	Open Space	1.60		
	Manufactured Slopes	4.06		
	Recreation Lot	0.93		
	Subtotal	**32.80**	**4.57**	**150**
Planning Area 4	Single Family (Cluster) Detached Units	8.31		65
	Open Space	9.00		
	Manufactured Slopes	5.69		
	Subtotal	**23.00**	**2.82**	**65**
Open Space	Open Space	28.78		
	Subtotal	**28.78**		
Other Categories	Public Streets	27.51		
	VCWPD Easement (Lot AD)	2.68		
	Detention Basin 2 (Lot Z)	5.94		
	Detention Basin 2A (Lot H)	3.67		
	Detention Basin 2B (Lot V)	6.30		
	Detention Basin 3	12.30		
	Subtotal	**58.40**		
	TOTAL	**277.30**	**1.50**	**415**

SOURCE: Comstock Homes, 2021.

FIGURE **4.0-2**

IMPACT SCIENCES

Alternative 3 - 415 Unit Reduced Visual Impact - Land Use Plan

Air Quality

Alternative 3 would alter less of the Project Site's existing condition due to a reduced need for grading for infrastructure and housing construction, and would result in the construction of 300 units fewer of housing shortening the construction duration, resulting in the generation of less construction air pollutant emissions. In addition, all of the proposed mitigation measures to reduce potential impacts to air quality would still be implemented. Therefore, similar to the Proposed Project, construction impacts to air quality would be less than significant.

This alternative consists of an approximately 45 percent reduction in the number of residential units as compared to the Proposed Project. Therefore, it is reasonable to assume that operational air pollutant emissions would be reduced in a generally proportionate fashion. Using similar metrics used to calculate the Proposed Project's operational emissions, it appears that Alternative 3 would avoid the significant and unavoidable operational impact because ROC emissions would be below the threshold of 25 pounds per day.

Estimated Project Daily Emissions at Buildout – Alternative 3

	Emissions in Pounds per Day					
Emissions Source	**ROC**	**NO_x**	**CO**	**SO_x**	**PM10**	**PM2.5**
Emissions Totals	23	11	102	< 1	15	5
Recommended Threshold	25	25	—	—	—	—
Exceeds Threshold?	**No**	**No**	—	—	—	—

Biological Resources

Alternative 3 would alter less of the Project Site's existing condition due to the lessened need for grading to install infrastructure (flood control basins, roadways, utilities, etc.), and 300 fewer units of housing construction; further, construction could largely avoid areas where biological resources and sensitive habitats exist. In addition, all of the proposed mitigation measures to reduce potential impacts to the existing on-site plant communities (including sensitive plant species), wildlife species (including sensitive wildlife species), nesting birds, protected trees, "waters of the US/waters of the State" under jurisdiction of the US Army Corps of Engineers (USACE) and/or the Regional Water Quality Control Board (RWQCB), or streambed or habitat under the jurisdiction of the California Department of Fish and

Wildlife (CDFW) would still be implemented. Although the Project's impacts would be less than significant, potential impacts associated with Alternative 3 would be less than those of the Project.

Cultural Resources

Alternative 3 would alter less of the Project Site's existing condition due to a reduced need for grading for infrastructure and housing construction, and would result in the construction of 300 units fewer of housing. Nonetheless, as the Project Site is vacant, there are no historical resources within or adjacent to the Project Site. Thus, similar to the Project, no impacts to historic resources would occur under Alternative 3. Such impacts would be similar to those under the Project.

Alternative 3 would have a reduced need for grading for infrastructure and housing construction, and would result in reduced earthmoving activities. Thus, Alternative 3 would have a lessened potential for uncovering archaeological resources or previously unknown human remains; however, the inadvertent discovery of archaeological resources or previously unknown human remains would still be considered a significant impact. Under the Project, impacts associated with the potential discovery of unknown archaeological resources or previously unknown human remains would be less than significant with implementation of mitigation measures, and these same measures would be implemented under Alternative 3. Therefore, similar to the Proposed Project, potential impacts under Alternative 3 would be less than significant.

Energy

Under Alternative 3, the number of new housing units would be reduced by 300 units, resulting in 1,204 fewer residents residing on the Project Site. Therefore, demand for electricity and natural gas would less than that of the Proposed Project. Although the Project's impacts would be less than significant, potential impacts associated with Alternative 3 would be less than those of the Project.

Geology and Soils

Alternative 3 would alter portions of the Project Site for infrastructure improvements and housing construction, although to a lesser extent than the Proposed Project. Implementation of the Alternative 3 would require grading activities to lessen impacts related to slope instability, sedimentation, and erosion. Furthermore, Alternative 3 could expose additional people and/or structures to potential adverse effects associated with geologic and seismic hazards, such as fault rupture, seismic groundshaking, liquefaction, lateral spreading, subsidence, landslides or expansive soils, although to a lesser extent than the Proposed Project. Under the Project, impacts associated geology and soils would be less than significant with implementation of mitigation measures, and these same measures would be implemented under

Alternative 3. Although the Project's impacts would be less than significant, potential impacts of Alternative 3 would be less than under the Project.

Greenhouse Gas Emissions

Under Alternative 3, the number of new housing units would be reduced by 300 units, resulting in 1,204 fewer residents residing on the Project Site. Therefore, greenhouse gas (GHG) emissions would be less for both construction and operation of Alternative 3. Although the Project's impacts would be less than significant, potential impacts of Alternative 3 would be less than under the Project.

Hazards and Hazardous Materials

Under Alternative 3, construction of 415 units of housing and associated grading activities would occur. However, similar to the Project, all potentially hazardous materials transported, stored, or used on-site for construction purposes and subsequently for the upkeep of public facilities, parkland and open space areas by the construction contractors, and subsequent homeowners, would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable County, state, and federal regulations governing such activities. With contractor and resident compliance with the County, state and federal regulations, impacts related to accidental release or upset due to the use of hazardous materials or hazardous waste disposal by the construction and operation under Alternative 3 would be less than the Project due to less grading and fewer housing units, and less than significant.

Similar to the Project, Alternative 3 would result in an increase in population at the Project Site, and there would be a corresponding increase in the need for fire protection services, including paramedic services. The proposed residential uses are expected to create the typical range of fire service calls that other such uses create, including kitchen/house fires, garbage bin fires, car fires, electrical fires, etc. Impacts associated with the additional residents include an increase in the number of fire department responses, routine fire prevention life/safety inspections, public education activities and participation in community events. While fire service impacts would be less than significant under both the alternative and the Project, due to the reduced population under the alternative, impacts would be incrementally less when compared to the Project.

The Project Site is located in a VHFHS Zone. Therefore, similar to the Project, development under this alternative would be subject to various governmental codes, guidelines, and programs aimed at reducing the potential fire hazard risks to an acceptable level; including, but not limited to, County of Los Angeles Fire Code Section 1117.2.1 which includes building standards and landscape criteria for all new construction relating to fuel modification planning to help reduce the threat of fires in high hazard areas. Both the Project and the alternative would result in less than significant impacts with respect to location

in a fire hazard zone. However, due to the reduction in the number of residential structures in the zone, impacts associated with the alternative would be incrementally less when compared to the Project. For these reasons, Alternative 3 would result in impacts similar to the Project, although incrementally reduced, with respect to hazards and hazardous materials.

Hydrology

Alternative 3 would reduce the approximately 198.7 acres (72 percent) of the Project Site that would be graded, and covered with impervious surfaces associated with the Project. As such, there would be more opportunities for infiltration with this alternative. As with the Project, urban runoff that is generated under Alternative 3 would be conveyed and discharged into the local storm drain system. However, under Alternative 3 would also include construction of four detention basins (2, 2A, 2B and 3) to stabilize and improve conditions on the Project site, and hydrology impacts could be similar under this alternative. Although the Alternative 3's impacts would be less than significant, the Alternative would not include the construction of development of detention/water quality basin AE, four debris basins, and other improvements that would enhance downstream flood control and water quality as proposed under the Specific Plan.

Water Quality

As described above, Alternative 3 would introduce new impervious surfaces, new landscaped areas, and some drainage improvements. As discussed above, under this alternative downstream water quality could potentially continue to degrade. Although Alternative 3's impacts would be less than significant, without the inclusion of detention/water quality basin AE, potential impacts to water quality would be greater than those of the Project.

Land Use and Planning

Under Alternative 3, similar to the Project's requested discretionary actions, General Plan Amendments to the Circulation and Land Use Elements, rezoning of the site from AE-40 to RPD, a vesting tentative tract map, Residential Planned Development Permit(s), and tree removal permits would be required.

With regard to land use compatibility, Alternative 3 would introduce new development on the Project Site; however, the proposed 415 single family homes would be organized to avoid development on the most southerly, and publicly visible, areas of the Project site. Thus, Alternative 3 would have minimal affect existing on- or off-site land uses or existing land use relationships on the Project Site or the surrounding area. Therefore, less than impacts relative to land use compatibility would occur. Although

Project impacts would be less than significant, potential impacts associated with Alternative 3 would be less than those of the Project.

Noise

Under Alternative 3, construction of new permanent buildings and associated infrastructure improvements would occur, but to a much lesser degree. Thus, noise impacts associated with short-term construction would occur. However, as with the Project, impacts associated short-term construction noise would be less than significant with implementation of mitigation measures, and these same measures would be implemented under Alternative 3.

Under Alternative 3, some development would occur on the Project Site, and an increase in traffic would occur. The vehicles accessing the existing roadway network have the potential to increase ambient noise levels in the project vicinity. According to Caltrans, vehicle noise emissions increase with speed, and increased traffic volumes increase traffic noise; however, it takes a doubling of traffic to increase noise levels by only 3 dB(A).[3] Further, given the immediate proximity of the Moorpark Metrolink station to PA-4, a shift in mode share from drive alone commutes to rail transit is appropriate. As shown in **Table 3.11-6, Project Traffic Noise Level Increases** the increase in noise levels along all study roadways would range from 0.0 to 5.1 dB(A) CNEL. The largest increase of 5.1 dB(A) CNEL would be on Gabbert Road north of Poindexter Avenue but would not result in a noise level that exceeds the City's 65 dB(A) exterior noise level standard, and would not be considered significant. Alternative 3 would result in a reduction of operational noise impacts as compared to the Project's less than significant operational noise impacts due to the reduction of housing units (300 fewer units) and traffic noise (due to 37 percent fewer housing units and residents). Finally, similar to the Proposed Project, Alternative 3 would implement mitigation measures to reduce vibration impacts during construction, and thus vibration impacts would be less than the Project's less than significant impacts.

Population and Housing

No significant impacts related to population and housing have been identified under the Proposed Project. Alternative 3 would reduce the number of on-site housing units by 300 units, and the on-site population by approximately 1,204 residents. Therefore, impacts related to population and housing associated with Alternative 3 would have less impact than the Proposed Project's less than significant impacts.

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3 Caltrans, *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* September 2013.

Public Services

Fire Service

Alternative 3 would result in new development and thus would increase the population on the Project Site and generate an associated increase in calls for fire protection and emergency medical services by the Ventura County Fire Department (VCFD). However, the demand for fire protection and emergency medical services in the area under Alternative 3 would be less the that of the Proposed Project given the 45 percent reduction in housing units and on-site population, and in addition, as with the Proposed Project, Alternative 3 would implement mitigation measures to further reduce potential impacts. It should also be noted that some Project benefits such as construction of the extensions of Meridian Hills Drive, and High Street, which would provide additional emergency access and evacuation routes, would not be provided under Alternative 3. Nonetheless, although Project impacts would be less than significant, such impacts would be less under Alternative 3.

Law Enforcement Service

Alternative 3 would result in new development and thus would increase the population on the Project Site and could generate an associated increase in calls for law enforcement services by the Sheriff's Department. Therefore, the demand for law enforcement services in the area could increase from existing conditions. However, the demand for law enforcement services in the area under Alternative 3 would be less the that of the Proposed Project given the reduction of 45 percent in housing units and on-site population, and in addition, as with the Proposed Project, Alternative 3 would implement mitigation measures to further reduce potential impacts. It should also be noted that some Project benefits such as construction of the extensions of Meridian Hills Drive, and High Street, which would provide additional emergency access and evacuation routes, would not be provided under Alternative 3. Nonetheless, although Project impacts would be less than significant, such impacts would be less under Alternative 3.

Schools

Alternative 3 would result in new development and thus would increase the population on the Site resulting in additional school age children in the neighborhood. Therefore, the demand for school services in the area would increase from existing conditions. However, similar to the Proposed Project, payment of the developer fees mandated under School Facilities Act (Government Code Section 65995) would mitigate Alternative 3 impacts on the Moorpark Unified School District. This

funding would offset the costs to construct new schools necessary to house the additional students generated by Alternative 3 and impacts would be less than significant.

Library Service

Alternative 3 would result in new development and thus would increase the population on the Site resulting in additional population in the neighborhood. Therefore, the demand for library services in the area would increase from existing conditions. However, similar to the Proposed Project, project applicant would be required to pay library facilities fees to the City of Moorpark, in effect at the time of and prior to the issuance of building permits. The City would use the fees for the purposes of improving library facilities to meet the increased demand on library services generated by Alternative 3 and impacts would be less than significant.

Recreation

Alternative 3 would result in new development and thus would increase the population on the site and generate an associated increase in the need for recreational areas in the neighborhood. The Proposed Project would provide a new approximately 6.77-acre public park, four private recreation areas, and four and one-half miles of public multi-use trails connecting to local and regional trails in the surrounding hills; none of these facilities would be developed under Alternative 3. Under Alternative 3, the Applicant would satisfy recreation/park space obligations solely through payment of Quimby fees. As such impacts related to recreation would be less than significant under Alternative 3.

Transportation

An increase in traffic would result from Alternative 3 due to construction-related trips on the local or regional street system, albeit far less that the Proposed Project, due to the reduced amount of grading and construction proposed under Alternative 3. Construction-related traffic impacts under the Project would be less than significant with the implementation of traffic management controls where necessary, and Alternative 3 would implement these same controls. Therefore, as with the Proposed Project, the impact of Alternative 3 due to construction-related trips would be less than significant.

Under Alternative 3, the number of new housing units would be reduced by 300 units, resulting in 1,204 fewer residents residing on the Project Site. Therefore, vehicle miles traveled (VMT) by project residents would less than that of the Proposed Project. Further, Project impacts (as related to City of Moorpark criteria) would be less than significant after mitigation; Alternative 3 would implement the same mitigation as required that for the Proposed Project and impacts would be less than significant.

Tribal Cultural Resources

Alternative 3 would have a reduced need for grading for infrastructure and housing construction, and would result in greatly reduced earthmoving activities. Thus, Alternative 3 would have a lessened potential for uncovering Tribal Cultural Resources; however, the inadvertent discovery of Tribal Cultural Resources would still be considered a significant impact. Under the Project, impacts associated with the potential discovery of unknown Tribal Cultural Resources would be less than significant with implementation of mitigation measures, and these same measures would be implemented under Alternative 3. Therefore, similar to the Proposed Project, potential impacts under Alternative 3 would be less than significant.

Utilities

Water Supply

As discussed in **Section 3.17.2 Water Supply**, water demands for the Proposed Project were included in the water demand projections in the Ventura County Waterworks District (VCWWD) No. 1's 2016 Urban Water Management Plan (UWMP). As indicated in the VCWWD No. 1's UWMP, the District's total projected water supplies available over the next 20 years will meet the projected water demands associated with the Proposed Project and existing and other planned uses within the District's service area under most scenarios. Therefore, the impact of the Proposed Project on water supplies under normal year and multiple dry year scenarios would be less than significant. In addition, the amount of production relied upon in the supply-demand analysis to meet future demands will necessitate an expansion of treatment facilities, with or without the Proposed Project. As such, the impact on the expansion of facilities would be less than significant as well.

Under Alternative 3, new demand for domestic water would be generated, and new water supply and distribution improvements would need to be constructed. However, under Alternative 3, the number of new housing units would be reduced by 300 units, resulting in 1,204 fewer residents residing on the Project Site. Therefore, demand for potable water would less than that of the Proposed Project. Therefore, although Project impacts would be less than significant, such impacts would be less under Alternative 3.

Wastewater

As discussed in **Section 3.17.3 Wastewater**, VCWWD No. 1 owns, operates, and maintains the sewer collection system and wastewater treatment facility that serves the City of Moorpark and adjacent Ventura County, surrounding community, and specific plan site. The Moorpark Wastewater

Treatment Plant (MWWTP) has a design capacity of 5.0 mgd and has a state discharge permit for 1.5 mgd. The current average flow is 2.1 mgd.[4] The treatment plant is permitted to discharge directly into the Arroyo Simi. As discussed in **Section 3.17.3 Wastewater**, the existing wastewater collection and treatment system are sufficient to accommodate the Proposed Project at build-out conditions.

Under Alternative 3, new wastewater flows would be generated. The existing wastewater collection treatment system is sufficient to treat the new flows; however, new wastewater collection improvements would need to be constructed. Under Alternative 3, the number of new housing units would be reduced by 300 units on the Project Site. The existing wastewater collection system was determined to be sufficient to accommodate the Proposed Project area at build-out conditions. As such, given the reduced flow of Alternative 3, impacts would also be less than significant.

Solid Waste

Under Alternative 3, construction of new permanent structures and associated infrastructure improvements would occur. Therefore, construction debris and waste would be generated for disposal at a County inert landfill. However, under Alternative 3, the number of new housing units would be reduced by 300 units. As discussed in **Section 3.17.4, Solid Waste**, the Simi Valley Landfill currently has remaining capacity to handle the Proposed Project's estimated solid waste from construction activities. Therefore, construction-related solid waste generated from the development of the Proposed Project would result in a less than significant impact. As construction-generated waste from the implementation of Alternative 3 would be less than the Proposed Project, impacts would also be less than significant.

In addition, the land uses would be the same as those proposed under the Proposed Project and given the reduction in housing units, the demand for landfill capacity during operation under Alternative 3would be less than that of the Proposed Project. Therefore, impacts of Alternative 3 regarding solid waste, would be less than the Proposed Project, and would be less than significant.

Wildfire

The Project Site is in a Very High Fire Hazard Severity Zone; as discussed in **Section 3.18, Wildfire**, Project impacts would be less than significant with mitigation. As with the Proposed Projects, Alternative 3 would result in new development and land uses. However, under this alternative fewer improvements to slope stability, on- and off-site drainage and flood control improvements, and roadway connectivity

[4] Scott Meckstroth, Deputy Director, Ventura County, Department of Water and Sanitation, personal communication, November 13, 2020.

would occur. Therefore, despite a lower density, this alternative would slightly increase impacts related to Wildfire.

4.5.3 Relationship of the Alternative to the Project Objectives

The 415 Unit Reduced Visual Impact Alternative does not meet many of the basic project objectives, which are set forth in this EIR in **Section 2.0, Project Description**. Project objectives not fully met or impeded by the 415 Unit Reduced Visual Impact Alternative are listed below.

- Develop the project site with a financially feasible, residential project that meets the residential needs of the City of Moorpark.
- Provide residential development consistent with 2021-2023 City Council Goal 1: Identify options and solutions to barriers for housing for all economic and age ranges.
- Create a new community neighborhood that would allow for residential development, while preserving natural resources and open space.
- Provide a range of housing opportunities with varying densities, types, styles, prices, and tenancy characteristics (for sale versus rental).
- Help to achieve Housing Element goals for affordable housing.
- Transition development within the project site with consideration for natural resource areas and open space.
- Provide development and transitional land use patterns that supports surrounding land uses.
- Designate sites for needed public facilities including flood control facilities, regional roadways, and trails.
- Provide residential opportunities to respond to economic and market conditions over several years.
- Provide a tax base to support public services associated with the proposed development to appropriately offset development impacts to city services.
- Improve safe and adequate vehicle circulation within the regional area.
- Provide pedestrian, bicycle and equestrian trails that connect to the local and regional trail systems in the surrounding hills.

4.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The *State CEQA Guidelines* require that an environmentally superior alternative be identified among the selected alternatives (excluding the No Project alternative).[5] If the No Project Alternative is determined to be the environmentally superior alternative, an environmentally superior alternative must also be identified among the remaining alternatives.

The environmentally superior alternative would be Alternative 2 – RPD 20U-N-D Alternative. This alternative would reduce impacts related to visual resources to the greatest extent. Further, the lower density of this alternative would reduce impacts to biological and cultural resources, reduce demand for resources and services, as well as traffic volumes and noise levels.

By developing Alternative 2 rather than the Proposed Project, the applicant would not achieve the following project objectives to the same extent as they would be achieved under the Proposed Project:

- Develop the project site with a financially feasible, residential project that meets the residential needs of the City of Moorpark.
- Provide residential development consistent with 2021-2023 City Council Goal 1: Identify options and solutions to barriers for housing for all economic and age ranges.
- Create a new community neighborhood that would allow for residential development, while preserving natural resources and open space.
- Contribute to the enhancement of Downtown High Street by providing a new residential customer base, bicycle, vehicle, and pedestrian connections to the downtown.
- Provide a range of housing opportunities with varying densities, types, styles, prices, and tenancy characteristics (for sale versus rental).
- Help to achieve Housing Element goals for affordable housing.
- Locate housing near to jobs and in close proximity to transit in order to reduce Vehicle Miles Traveled.
- Provide development and transitional land use patterns that supports surrounding land uses.

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5 California Public Resources Code, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15124.6(e)(2).

- Designate sites for needed public facilities including flood control facilities, regional roadways, and trails.
- Provide residential opportunities to respond to economic and market conditions over several years.
- Provide a tax base to support public services associated with the proposed development to appropriately offset development impacts to city services.
- Improve safe and adequate vehicle circulation within the regional area.
- Provide pedestrian, bicycle and equestrian trails that connect to the local and regional trail systems in the surrounding hills.

Table 4.0-1
Alternatives Impact Comparison Matrix

Environmental Topic	Proposed Project	Alternative 1 No Project	Alternative 2 RPD 20U-N-D	Alternative 3 415 Unit Reduced Visual Impact
Aesthetics	S/U	L	S	S
Air Quality – Construction	LTS	L	L	L
Air Quality – Operational	S/U	L	S	L
Biological Resources	LTS	L	L	L
Cultural Resources	LTS	L	S	S
Energy	LTS	L	L	L
Geology and Soils	LTS	L	L	L
Greenhouse Gas Emissions	LTS	L	L	L
Hazards and Hazardous Materials	LTS	L	L	L
Hydrology and Water Quality	LTS	L	G	G
Land Use and Planning	LTS	L	L	S
Noise	LTS	L	L	L
Population and Housing	LTS	L	L	L
Public Services				
Fire Protection	LTS	L	G	S
Law Enforcement Services	LTS	L	G	S
Schools	LTS	L	L	L
Library Services	LTS	L	L	L
Recreation	LTS	L	S	S
Transportation	LTS	L	L	L
Tribal Cultural Resources	LTS	L	S	S
Utilities and Service Systems				
Water Supply	LTS	L	L	L
Wastewater Disposal	LTS	L	L	L
Solid Waste	LTS	L	L	L
Wildfire	LTS	L	G	G

LTS = Less than Significant

S/U = Significant and Unavoidable

L = Less than the Project

S = Similar to the Project

G = Greater than the Project

5.0 OTHER CEQA CONSIDERATIONS

5.1 SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts which cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. Specifically, Section 15126.2(b) states:

> *Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.*

Based on the analysis contained in Section 3, Environmental Impact Analysis, of this Draft EIR, implementation of the Proposed Project would result in a significant unavoidable environmental impact to Aesthetics, specifically scenic views.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the CEQA Guidelines states that the "uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely." Section 15126.2(c) further states that "irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."

The types and level of development associated with the Proposed Project would consume limited, slowly renewable and non-renewable resources. This consumption would occur during construction of the Proposed Project and would continue throughout its operational lifetime. The development of the Proposed Project would require a commitment of resources that would include (1) building materials, (2) fuel and operational materials/resources and (3) the transportation of goods and people to and from the Project site.

Construction of the Proposed Project would require consumption of resources that are not replenishable or which may renew so slowly as to be considered non-renewable. These resources would include certain types of lumber and other forest products, aggregate materials used in concrete and asphalt (e.g., sand, gravel and stone), metals (e.g., steel, copper and lead), petrochemical construction materials (e.g., plastics) and water. Fossil fuels, such as gasoline and oil, also would be consumed in the use of construction vehicles and equipment.

The commitment of resources required for the type and level of proposed development would limit the availability of these resources for future generations for other uses during the operation of the Proposed Project. However, this resource consumption would be consistent with growth in the Southern California region and that expected to occur under the City of Moorpark General Plan.

5.3 GROWTH-INDUCING POTENTIAL

The *California Environmental Quality Act (CEQA) Statutes and Guidelines* requires that an EIR include a discussion of ways in which a project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.[1] The discussion should also identify any way in which a proposed project would remove obstacles to population growth, and discuss the characteristics of a project that may encourage and/or facilitate other activities that, either individually or cumulatively, could significantly affect the environment. CEQA emphasizes that growth in an area should not be considered beneficial, detrimental or of little significance. The purpose of this discussion is to evaluate the growth-inducing potential of the Proposed Project.

In general terms, a project may foster growth in a geographic area if it meets any of the criteria identified below:

- The project removes an impediment to growth, such as through the establishment of an essential public service, or the provision of new access to an area that will facilitate additional growth.
- The project results in the urbanization of land in a remote location that will induce the growth of undeveloped areas between the project and existing developed areas, commonly referred to as "Leap-Frog Development."
- Economic expansion or growth occurs in an area in response to the project, such as by means of a substantial change in revenue base or an expansion of employment.
- The project establishes a precedent-setting action, such as approval of a general plan amendment or change in zoning that will serve as a precedent for other similar projects.

Should a project meet any one of these criteria, it may be considered growth inducing. An evaluation of the proposed Hitch Ranch Specific Plan in relation to these criteria is provided in this section.

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1 California Code of Regulations, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Sections 15126 (d) and 15126.2 (d).

Removal of an Impediment to Growth

Growth in an area may result from the removal of physical impediments or restrictions to growth. In this context, physical growth impediments may include nonexistent or inadequate access to an area or the lack or insufficiency of essential public services, such as sewer and water service. The following discussion evaluates the effects of the Proposed Project with respect to this criterion.

The construction of water, sewer, electricity, and natural gas infrastructure is required to support residential and recreational of the uses that would be developed by the Proposed Project.

In the case of water, development of the Proposed Project requires the construction of a system designed to convey and distribute potable water to uses in the project area. The water supply and distribution system designed for the Proposed Project does not provide capacity beyond that required to serve the proposed residential and recreational uses. In addition, the construction of this distribution system would involve the connection to existing water mains located within the surrounding roadway network that serve the existing residential neighborhoods located east, west and north of the project area. No new water mains other than those required to serve the Proposed Project are to be constructed. Therefore, the construction of this water infrastructure would not induce any additional growth in the surrounding area.

The Proposed Project would also involve the extension of wastewater collection lines to serve the proposed residential uses; the existing Hitch Ranch Specific Plan site is undeveloped and as a result, does not include any wastewater collection lines. An in-tract gravity collection system that will generally flow from north to south towards the southwestern corner of the Project site is proposed. The in-tract sewer system will have a 12-inch diameter main line on "A" Street which will serve all onsite Planning Areas and will be sized to accommodate any future flows to the north. Sewer lines will be located along planned streets in order to join the main VCWW trunk line that parallels the Arroyo Simi waterway. The planned capacity will accommodate the planned apartment development on Lot 378 of Tentative Tract 5708 – which is not considered part of the project. Other projects within the area would require extensions and connected to existing wastewater collection infrastructure. As a result, wastewater collection lines constructed for the project would be able to support additional construction to the north but would not provide capacity for additional growth in the area beyond what is already planned, nor are they configured to facilitate extension into the surrounding area.

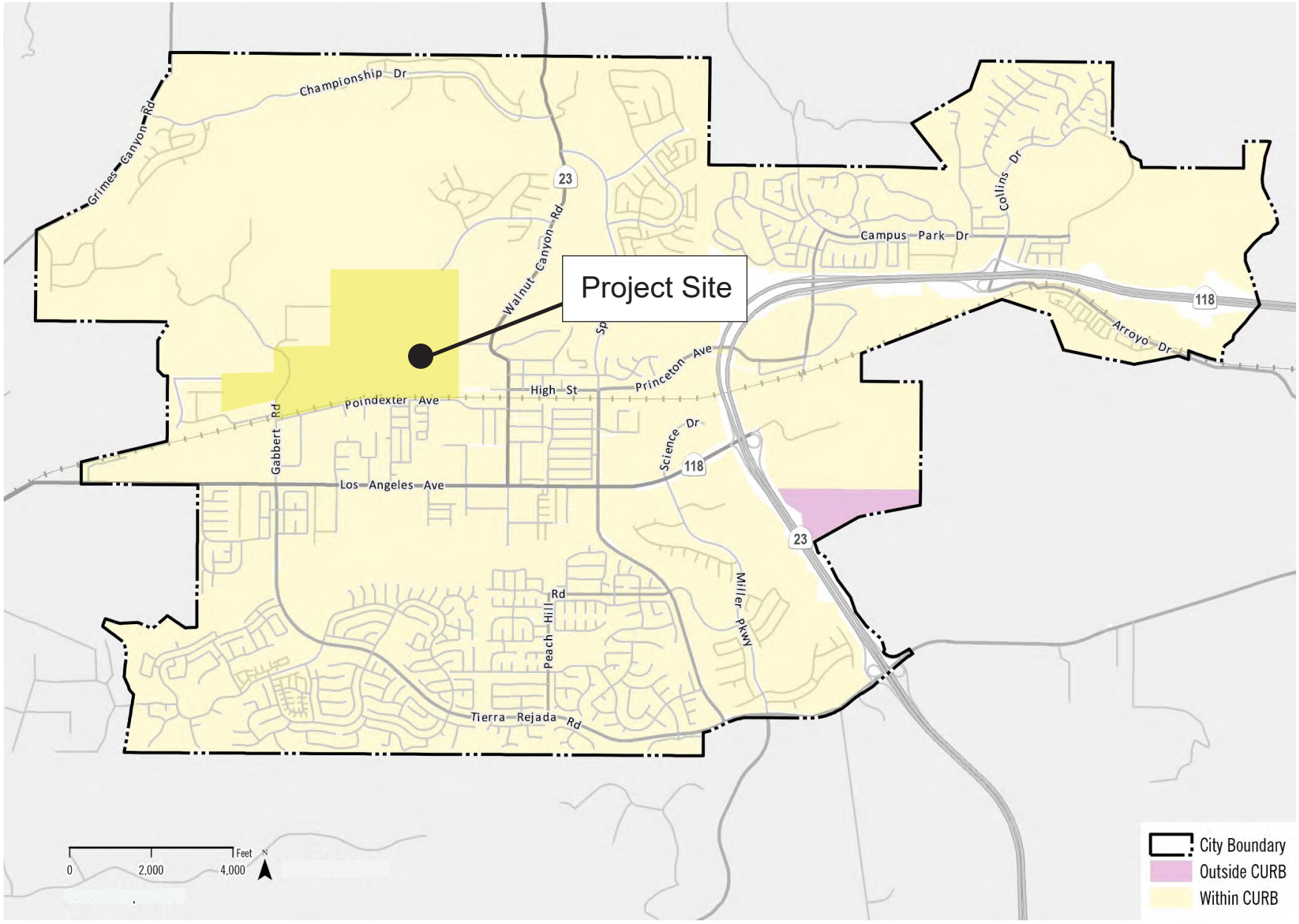
Electricity and natural gas transmission infrastructure presently exists adjacent to the project area. Development of the Proposed Project would necessitate the construction of a distribution system to serve the residential and recreational uses on the site. This system would be designed to accommodate these

uses, and would not extend beyond the requirements or boundary of the Proposed Project site. Given the existence of established energy transmission lines in this area, no growth-inducing impacts are expected with regard to this type of infrastructure.

An established roadway network exists to the north, east, and south of the project area in Moorpark. The Hitch Ranch Specific Plan includes the construction of High Street on the southern edge of the site that will connect the existing Moorpark Avenue to Gabbert Road. Additionally, the Proposed Project would construct internal roadways as well as extend the existing Meridian Hills Drive and Casey Road to the Project site. However, the Proposed Project does not include any new major collector roadways that would provide additional access or traffic capacity that would facilitate development of the surrounding land. These roadways would serve as access to the Proposed Project for residents and emergency responders and would not serve to allow or promote additional growth.

Save Open and Agricultural Resources (SOAR) is a set of laws adopted by the local governments of Ventura County in order to control urban sprawl in the county. In Ventura County's unincorporated lands, SOAR requires the County Board of Supervisors to receive approval from voters all over the county before any up-zoning of the unincorporated lands currently designated for agricultural, open space, or rural land uses can occur. SOAR establishes city-urban restriction boundaries (CURBs) around the perimeters of each incorporated city in Ventura County. If City leadership seeks to expand their CURB beyond its existing limits, they must have the approval of a majority of voters in the city before the expansion can occur. Each community in Ventura County voted in 2016 to extend their participation in SOAR past the original initiative's expiration date of 2020. In Moorpark, SOAR was re-extended by Measure E to continue until 2050.[2] As shown in **Figure 5.0-1, SOAR-CURB Boundary within Moorpark**, the Project site is well within the SOAR-CURB boundary, and thus would not induce/cause growth outside of an area intended for urban development.

2 City of Moorpark, *MOORPARK 2020: An Examination of the City's Existing Conditions*, December 2020.



SOURCE: City of Moorpark, 2020.

FIGURE **5.0-1**

SOAR-CURB Boundary within Moorpark

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Urbanization of Land in Remote Locations (Leap-Frog Development)

Development can be considered growth inducing when it is not contiguous to existing urban development and "leaps" over open space areas. The proposed residential development is located within the City's CURB, and located immediately north, south, east, and west of existing residential development in the City. While the project would extend this existing pattern of development, it would not "leap-frog" over undeveloped areas and introduce development that is not continuous with existing development. As the Proposed Project site is adjacent to development on the east, west, north and south, the extension of the existing urban development pattern in the City by the Proposed Project would not result in additional growth.

Economic Growth

The Proposed Project is focused on the development of 755 dwelling units and open space within the next five years. The Proposed Project site is located in a community presently served by existing retail-commercial uses, schools, and other support services and facilities, including public transit. Given the relation of the project to the existing development pattern in the surrounding area, it is not anticipated that the project will foster or promote additional growth of commercial uses in the area, but rather will support existing resources of this nature. Given the size of the Proposed Project and the relatively small resulting increase in population, it is expected that new residents seeking commercial uses in the City could be absorbed by the existing commercial opportunities in the City and nearby communities.

The future residents of the 755 housing units that would be developed may also represent an increase in the local labor force. Given the size of the Proposed Project and the relatively small resulting increase in population, it is expected that new residents seeking employment within the City would be absorbed by existing employment opportunities in the City and nearby communities. The growth in population associated with the Proposed Project is consistent with the adopted growth projections for the City. Therefore, it is not anticipated that the Proposed Project alone would induce growth in commercial, industrial, and office development on presently undeveloped property in the City.

Precedent-Setting Action

As previously mentioned, the Project site is located within the City of Moorpark CURB line. The CURB line sets a boundary for development of the City over a 20-year period through December 31, 2020. The proposed residential uses are located to be consistent with the residential land use designations on the City's General Plan land use map. Development of the site with residential uses is, therefore, consistent with existing land use plans and policies and is not precedent setting. For an extensive discussion of land

use approvals being sought by the applicant and the land use compatibility of the project with the City's General Plan refer to **Section 3.10, Land Use**.

Conclusion

The Proposed Project would not induce additional growth in the surrounding area.

6.0 LIST OF EIR PREPARERS

INTRODUCTION

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7.0 ACRONYMS/GLOSSARY OF TERMS

INTRODUCTION

This section includes a list of acronyms and a glossary of the terms used throughout this document.

7.1 ACRONYMS

AE: Agricultural Exclusive

AOC: Area of Contribution

APCD: Air Pollution Control District

AQMP: Air Quality Management Plan

BAU: Business as Usual

BMP: Best Management Practice

CAA: Clean Air Act

CARB: California Air Resources Board

Cal/EPA: California Environmental Protection Agency

CAPCOA: California Air Pollution Control Officers Association

CAT: Climate Action Team

CBSC: California Building Standards Commission

CCAR: California Climate Action Registry

CCR: California Code of Regulations

CDMG: California Division of Mines and Geology

CEC: California Energy Commission

CMWD: Calleguas Municipal Water District

CMP: Congestion Management Plan

CNDDB: California Natural Diversity Database

CNEL: Community Noise Equivalent Level

CNPS: California Native Plant Society

CNRA: California Natural Resources Agency

DOF: Department of Finance

DOT: Department of Transportation

DSOD: Division of Safety of Dams

DTSC: Department of Toxic Substances Control

EAP: Energy Action Plan

EDR: Environmental Data Resources

FAA: Federal Aviation Administration

FCGMA: Fox Canyon Groundwater Management Agency

FIRM: Flood Insurance Rate Map

GHG: Greenhouse Gases

GWP: Global Warming Potential

HCM: Highway Capacity Manual

HGL: Hydraulic Grade Line

ICU: Intersection Capacity Utilization

ITE: Institute of Transport Engineers

LACM: Los Angeles County Museum

LARWQCB: LA Regional Water Quality Control Board

LID: Low Impact Development

LNG: Liquified Natural Gas

LOMR: Letter of Map Revision

LOS: Level of Service

MPO: Metropolitan Planning Organization

MPSC: Moorpark Police Services Center

MUSD: Moorpark Unified School District

NAAQS: National Ambient Air Quality Standards

NAHC: Native American Heritage Commission

NFIB: National Flood Insurance Program

NHTSA: National Highway Traffic Safety Administration

NPDES: National Pollution Discharge Elimination System

PACE: Pacific Advanced Civil Engineering, Inc.

PCSMP: Post-Construction Storm Water Management Plan

RHNA: Regional Housing Needs Assessment

RPD: Residential Planned Development

RTAC: Regional Targets Advisory Committee

RTP: Regional Transportation Plan

RWQCB: Regional Water Quality Control Board

SCAG: Southern California Association of Governments

SCCAB: South Central Coast Air Basin

SCE: Southern California Edison

SCGC: Southern California Gas Company

SCS: Sustainable Community Strategy

SIP: State Implementation Plan

SCAQMD: South Coast Air Quality Management District

SQDF: Stormwater Quality Design Flow

SWPPP: Stormwater Pollution Prevention Plan

TAC: Toxic Air Contaminant

TDM: Transportation Demand Management

TIA: Traffic Impact Analysis

TTM: Tentative Tract Map

USACE: U.S. Army Corps of Engineers

USEPA: U.S. Environmental Protection Agency

VCAPCP: Ventura County Air Pollution Control District

VCEHD: Ventura County Environmental Health District

VCFCD: Ventura County Flood Control District

VCFPD: Ventura County Fire Protection District

VCMP: Vegetation Classification and Mapping Program

VCWPD: Ventura County Watershed Protection District

VMT: Vehicle Miles Traveled

VOC: Volatile Organic Compound

WQMP: Water Quality Management Plan

WSA: Water Supply Assessment

7.2 GLOSSARY OF TERMS

A-WEIGHTED DECIBEL SOUND LEVEL (dB(A)): The sound level in decibels as measured on a sound level meter using the A-weighting network (see decibel, A-Weighted).

ACCUMULATED OVERDRAFT: The amount of water necessary to be placed into the groundwater basin to prevent the landward movement of ocean water into the fresh

ACOUSTICS: The physical qualities of a room or other enclosures (such as size, shape, amount of noise) that determine the audibility and perception of speech and music.

ACRE-FOOT: The amount of water needed to cover an acre (approximate a football field) to a depth of 1 foot, or 325,900 gallons. One acre-foot can support the annual indoor and outdoor needs of between one and two households per year and, on average, 3 acre-feet are needed to irrigate 1 acre of farmland.

ACRE: A unit of land equal to 43,560 square feet.

ADVERSE IMPACT: A term used to describe unfavorable, harmful, or detrimental environmental changes. Adverse impacts may be significant or not significant (see Significant Impact).

AGRICULTURE: Farming, including animal husbandry and the production and management of crops (including aquatic crops) for food, fiber, fuel, and ornament (source: Moorpark Municipal Code Section 17.08.010).

AIR BASIN: An area of the state designated by the Air Resources Board pursuant to Subdivision (a) of Section 39606 of the California Health and Safety Code for air quality planning purposes.

AIR POLLUTANTS: Substances that are foreign to the atmosphere or are present in the natural atmosphere to the extent that they may result in adverse effects on humans, animals, vegetation, and materials. Common air pollutants are ozone, nitrogen dioxide, particular matter, and carbon monoxide. Air pollution is defined in the California Health and Safety Code as any discharge, release, or other propagation into the atmosphere and includes, but is not limited to, smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matter, acids, or any combination thereof.

AIR POLLUTION CONTROL DISTRICT (APCD): A local agency with authority to regulate stationary sources of air pollution (such as refineries, manufacturing facilities, and power plants) within a given county, and governed by a District Air Pollution Control Board composed of elected county supervisors and city representatives.

AIR QUALITY MANAGEMENT PLAN (AQMP): A plan prepared by an air pollution control district or agency to comply with either the federal Clean Air Act or the California Clean Air Act. An AQMP contains measures that will be taken to attain and maintain federal and state ambient air quality standards. In California, air districts prepare air quality management plans that are included in the state's State Implementation Plan (SIP) that is required by the federal Clean Air Act. Such plans are also referred to as Clean Air Plans or Clean Air Attainment Plans.

AIR QUALITY MODEL: An algorithmic relationship between pollutant emissions and pollutant concentrations used in the prediction of a project's pollutant impact.

AIR QUALITY STANDARD: The specified average concentration of an air pollutant in ambient air during a specified period at or above which undesirable effects may be produced.

AIR TOXICS: Any air pollutant for which a national ambient air quality standard (NAAQS) does not exist (i.e., excluding ozone, carbon monoxide, $PM_{10,}$ sulfur dioxide, nitrogen dioxide) that may reasonably be anticipated to cause cancer, developmental effects, reproductive dysfunctions, neurological disorders, heritable gene mutations, or other serious or irreversible chronic or acute health effects in humans.

ALTERNATIVE FUELS: Fuels such as methanol, ethanol, natural gas, and liquid petroleum gas that are cleaner burning with lower air emissions.

AMBIENT AIR/AMBIENT CONDITIONS: Air present at a particular time and place outside of structures; often sues interchangeably with outdoor air. Initial background concentration sensed/measured at a monitoring/sampling site, as in air quality or noise.

AMBIENT NOISE: The background noise associated with a given environment, usually a composite of sounds from many sources near and far. The ambient noise level constitutes the normal or existing level of environmental noise at a given location.

ANNUAL OVERDRAFT: The quantity by which the production of water from the groundwater supplies during the water year exceeds the natural replenishment of such groundwater supplies during the same water year.

APPLICANT: Applicant means a person who proposes to carry out a project which needs a lease, permit, license, certificate, or other entitlement for use or financial assistance from one or more public agencies when that person applies for the governmental approval or assistance (source: *California Environmental Quality Act [CEQA] Guidelines* Section 15351).

APPROVAL: Approval means the decision by a public agency which commits the agency to a definite course of action in regard to a project intended to be carried out by any person. The exact date of approval of any project is a matter determined by each public agency according to its rules, regulations, and ordinances. Legislative action in regard to a project often constitutes approval. With private projects, approval occurs upon the earliest commitment to issue or the issuance by the public agency of a discretionary contract, grant, subsidy, loan, or other form of financial assistance, lease, permit, license, certificate, or other entitlement for use of the project (source: *State CEQA Guidelines* Section 15352).

AQUIFER: A geologic formation of sand, rock, and gravel through which water can pass and that can store, transmit, and yield significant quantities of water to wells and springs.

AQUEDUCT: A structure for transporting water from one place to another by means of a pipeline, canal, conduit, tunnel, or a combination of these things.

AREAS OF INTEREST: The Ventura Local Agency Formation Commission (LAFC) established areas of interest in Ventura County. The areas of interest divide the southern half of the County (non-Forest Service land) into 15 major geographic planning areas based primarily on topography and community identity. They are areas created by local policy, not legislative direction or mandate.

ARTERIAL ROAD: A vehicular right-of-way whose primary function is to carry through traffic in a continuous route across an urban area while also providing some access to abutting land.

ARTESIAN: An aquifer in which the water is under sufficient pressure to cause it to rise above the bottom of the overlying confining bed, if opportunity to do so should be provided.

ARTIFACT: A single, portable man-made or man-altered object; usually culturally diagnostic.

ARTIFICIAL RECHARGE: The addition of surface water to a groundwater reservoir by human activity, such as putting surface water into recharge basins.

AT-GRADE CROSSING: The crossing of two channels of transportation at the same elevation or level.

ATMOSPHERIC STABILITY: The resistance to or enhancement of vertical air movement related to the vertical temperature profile.

ATTAINMENT: Achieving and maintaining the air quality standards (both state and federal) for a given air pollutant.

ATTAINMENT AREA: An area considered to have air quality as good as or better than the National Ambient Air Quality Standard as defined in the Clean Air Act. An area may be an attainment area for one pollutant and a non-attainment area for others.

AVERAGE DAILY TRAFFIC (ADT): The number of vehicles (trips) passing a given point on a road going in a direction during a 24-hour period.

BACKGROUND CONCENTRATION: Air pollutant concentration due to natural sources and distant unidentified man-made sources.

BACKGROUND NOISE: See Ambient Noise.

BACKGROUND VIEW: View beginning at a distance from the observer and extending as far toward the horizon as the eye can detect the presence of objects. Skylines or ridgelines against other land surfaces are the strongest visual elements of the "background."

BASE FLOOD: A flood having a 1 percent change of being equaled or exceeded in any given year.

BASE FLOW: River surface flow, not counting storm flow and/or purchased imported water.

BASIN PLAN: A water quality control plan developed by a Regional Water Quality Control Board (RWQCB) for a specific geographic area. The Basin Plan identifies beneficial uses of waters, the water quality objectives needed to maintain these beneficial uses, and an implementation plan.

BENEFICIAL USES: The resources, services, and qualities of state waters that may be protected against quality degradation. The uses include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation, recreation, aesthetic enjoyment, navigation, and preservation; and enhancement of fish, wildlife, and other aquatic resources or preserves. The specific uses such as ″cold freshwater habitat″ and ″water contact recreation″ are defined in Section 2 of the Regional Water Quality Control Board's Basin Plans. Beneficial Uses are defined in California Water Code Section 13050.

BERM: An embankment, usually extended in a linear alignment. Berms can function as visual screens, noise attenuators, and surface water diverters.

BACT (Best Available Control Technology): Under the SCAQMD rules, for example, BACT is defined as the most stringent emissions control that for a given air emission source has been (1) achieved in practice; (2) is identified in a State Implementation Plan; or (3) has been found by the SCAQMD to be technologically achievable and cost-effective.

BMP (Best Management Practice): A BMP is any program, technology, process, siting criteria, operating method, measure, or device which controls, prevents, removes, or reduces pollution.

BUILDING: Any structure having a roof supported by columns or walls and intended for the shelter, housing, or enclosure of persons, animals, or property of any kind.

BUILDOUT: The year in which project construction has been completed.

CALIFORNIA AMBIENT AIR QUALITY STANDARDS (CAAQS): Specified concentrations of air pollutants, recommended by the California Department of Health Services and adopted into regulation by the Air Resources Board, which relate the intensity and composition of air pollution to undesirable effects. CAAQS are the standards that must be met per the requirements of the California Clean Air Act.

CALIFORNIA CLEAN AIR ACT (CCAA): A California law passed in 1998 that provides the basis for air quality planning and regulation independent of federal regulations, and which establishes new authority for attaining and maintaining California's air quality standards by the earliest practicable date. A major element of the CCAA is the requirement that local Air Pollution Control Districts in violation of the California Ambient Air Quality Standards must prepare attainment plans that identify air quality problems, causes, trends, and actions to be taken for attainment.

CALIFORNIA CODE OF REGULATIONS (CCR): The regulations that implement California laws.

CALIFORNIA DEPARTMENT OF TRANSPORTATION (Caltrans): The state government agency responsible for the construction, maintenance, and operation of state and federal highways in California.

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (Cal EPA): The state agency that incorporates the State Water Resources Control Board, the Integrated Waste Management Board, and other agencies with environmental responsibilities.

CALIFORNIA AIR RESOURCES BOARD (ARB): California's lead air quality agency, consisting of a nine-member Governor-appointed board, responsible for motor vehicle air pollution control, and having oversight over California's air pollution management program.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA): The California Environmental Quality Act, California Public Resources Code Sections 21000 et seq (Source: *State CEQA Guidelines* Section 15353).

CANDLEPOWER: The total light output expressed in candelas.

CARBON DIOXIDE (CO_2): A colorless gas that enters the atmosphere as the result of natural and artificial combustion processes. It is also a normal part of the ambient air.

CARBON MONOXIDE (CO): A colorless, odorless gas resulting from the incomplete combustion of fossil fuels. CO interferes with the blood's ability to carry oxygen to the body's tissues and can result in adverse health effects. CO is a criteria air pollutant.

CARBON MONOXIDE HOT SPOT: An area, usually an intersection or congested segment of a highway, that exceeds the federal or state carbon monoxide standard.

CATCH BASIN: A storm drain inlet having a sump below the outlet to capture settled solids.

CENSUS: The office United States decennial enumeration of the population conducted by the federal government.

CHLOROFLUOROCARBONS (CFC): A family of inert, nontoxic, and easily liquefied chemicals used in refrigeration, air conditioning, packaging, insulation, or as solvents or aerosol propellants. Because CFCs are not destroyed in the lower atmosphere, they drift into the upper atmosphere where the chlorine is released and destroys ozone.

CLEAN AIR ACT (CAA): A federal law passed in 1970 and amended in 1977 and 1990 that sets primary and secondary National Ambient Air Quality Standards for major air pollutants and forms the basis for the national air pollution control effort.

CODE OF FEDERAL REGULATIONS (CFR): The document that codifies all rules of the executive departments and agencies of the federal government. It is divided into 50 volumes, known as titles. Title 40 of the CFR (referenced as 40 CFR) lists all the environmental regulations.

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL): A noise compatibility level established by California Administrative Code, Title 21, Section 5000. Represents a time-weighted 24-hour average noise level based on the A-weighted decibel. The CNEL scale includes an additional 5 dB adjustment to sounds occurring in the evening (7 PM to 10 PM) and a 10 dB adjustment to sound occurring in the late evening and early morning between (10 PM and 7 PM).

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA): CERCLA, also known as Superfund, was enacted in 1980 to ensure that a source of funds was available to clean up abandoned hazardous waste dumps, compensate victims, address releases of hazardous materials, and establish liability standards for responsible parties. CERCLA also requires the creation of a National Priorities List that sets forth the sites considered to have the highest priority for cleanup under Superfund.

CONDOMINIUM: A building or group of buildings in which units are owned individually, but the structure, common areas, and facilities are owned by all owners on a proportional, undivided basis.

CONGESTION MANAGEMENT PLAN/PROGRAM (CMP): A state mandated program that requires each county to prepare a plan to relieve congestion and air pollution.

CONFINED AQUIFER: A water-bearing subsurface stratum that is bounded above and below by formations of impermeable, or relatively impermeable, soil or rock.

CONFORMITY: A requirement of the federal Clean Air Act that no department, agency, or instrumentality of the federal government shall engage in, support in any way, or provided financial assistance for license, permit, or approve any activity that does not conform with the State Implementation Plan (SIP) by causing or contributing to an increase in air pollution emissions, or violation of an air pollution standard, or frequency of violating that standard.

CONSTRUCTION: Any site preparation, assembly, erection, substantial repair, alteration, or similar action for or of public or private rights-of-way, structures, utilities, or similar property.

CONTOUR GRADING: A grading technique that uses curvilinear, horizontal, and vertical undulations in order to simulate the characteristics of natural topography.

CO-PERMITTEE: A permittee to an NPDES permit that is only responsible for permit conditions relating to the discharges from its area of jurisdiction.

CRITERIA AIR POLLUTANT: An air pollutant for which acceptable levels of exposure can be determined and for which a federal or state ambient air quality standard or criteria for outdoor concentrations has been set in order to protect public health.

CUMULATIVE IMPACTS: Cumulative impacts refer to two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonable foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (source: *State CEQA Guidelines* Section 15355).

DAYLIGHT GRADING: A grading technique which designates an existing natural contour as the transition line between a manufactured pad for development and the adjacent natural slope face, and which eliminates the need for fill slopes along the exposed edges of the development pad.

DAY-NIGHT AVERAGE SOUND LEVEL (L_{dn}): The A-weighted average sound level in decibels during a 24-hour period with a 10 dB weighing applied to nighttime sound levels (10 PM to 7 PM). This exposure method is similar to the CNEL, but deletes the evening period (7 PM to 10 PM) as a separate factor.

DECIBEL (dB): A unit for expressing the relative intensity (loudness) of sounds. The decibel is the logarithm of the ratio of the intensity of a given sound to the faintest sound discernible by the human ear.

DECIBEL, A-WEIGHTED (dB(A)): A-weighting is a frequency correction that correlates overall sound pressure levels with the frequency response of the human ear.

DECISION-MAKING AUTHORITY: Decision-making authority means any person or body vested with the authority to make recommendations or act on application requests. The final decision-making authority is the one which has the authority to act on a request by approving or denying it. This may include the Community Development Director or his/her designee, Planning Commission, or the City Council.

DECISION-MAKING BODY: Any person or group of people within a public agency permitted by law to approve or disapprove the project at issue (source: *State CEQA Guidelines* Section 15356).

DEEP PERCOLATION: The percolation of surface water through the ground beyond the lower limit of the root zone of plants into a groundwater aquifer.

DEGRADED WATER: Water within the groundwater basin that, in one characteristic or another, does not meet primary drinking water standards.

DEMOLITION: Any dismantling, intentional destruction, or removal of structures, utilities, public or private rights-of-way surfaces, or similar property.

DENIAL WITH PREJUDICE: Denial of an application request based on the desire or intent of the decision-making authority to limit the filing of requests to use a specific property or structure for a specific use. When an application is denied with prejudice, it is usually because two or more similar applications on the same property have recently been denied by the same decision-making authority (source: Moorpark Municipal Code Section 17.08.010).

DENIAL WITHOUT PREJUDICE: Denial of an application request based on the desire or intent of the decision-making authority to not form an adverse opinion or judgment formed beforehand or without full knowledge or complete examination of the facts (source: Moorpark Municipal Code Section 17.08.010).

DENSITY: The gross site area that shall include local roadways, slopes, and open space areas, unless otherwise specified. Density is usually expressed ″per acre.″ For example, a development with 100 dwelling units located on 20 acres has a density of five units per acre.

DENSITY BONUS: The allowance of additional residential units beyond the maximum for which the parcel is otherwise permitted usually in exchange for the provision or preservation of affordable housing units at the same site or at another location.

DESALTING (OR DESALINATION): Specific treatment processes, such as reverse osmosis or multi-stage flash distillation, to demineralize seawater or brackish (saline) waters for reuse. Also sometimes used in wastewater treatment to remove salts other pollutants.

DESIGN CAPACITY: The capacity at which a street, water distribution pipe, pump or reservoir, or a wastewater pipe or treatment plant is intended to operate.

DESILTING: The physical process of removing suspended particles from water.

DETENTION DEVICE: Facilities designed to collect and temporarily detain the initial volume of storm water runoff for a specified period of time to permit settlement of particulate pollutions.

DEVELOPMENT AGREEMENT: An agreement between a developer and a city that contains all of the terms and conditions for the maintenance, planning and development of a property, and legally governs the relationship between the agency and developer until the development has been completed.

DEVELOPMENT IMPACT FEES: A fee or tax imposed on developers to pay for the costs to the community of providing services to a new development. It is a means of providing a fund for financing new improvements without resorting to deficit financing.

DEWATERING DEVICE: The removal of groundwater resulting from excavations activities.

DIRECT EFFECTS: Effects that are caused by an action and occur at the same time and place.

DISCRETIONARY DECISION: A decision requiring the exercise of judgment, deliberation, or decision on the part of the decision-making authority in the process of approving or disapproving a particular activity, as distinguished from situations where the decision-making authority merely has to determine whether there has been conformity with applicable statutes, ordinances, or regulations.

DISPERSION: The process by which atmospheric pollutants disseminate due to wind and vertical stability.

DRAINAGE AREA: The portion of the earth's surface from which precipitation or other runoff flows to a given location. With respect to a highway, this location may be a culvert, the farthest point of a channel, or an inlet to a roadway drainage system.

DRIPLINE: The outermost edge of the tree's canopy. When depicted on a map, the dripline will appear an as irregular shaped circle that follows the contour of the tree's branches as seen from overhead.

DWELLING: A building or portion thereof designed or occupied exclusively for residential purposes (source: Moorpark Municipal Code Section 17.08.010).

DWELLING, SINGLE-FAMILY: A detached building constructed in conformance with the Uniform Building Code or a mobile home constructed on or after June 15, 1976 (source: Moorpark Municipal Code Section 17.08.010).

DWELLING, TWO-FAMILY: A building containing two separate dwelling units (source: Moorpark Municipal Code Section 17.08.010).

DWELLING UNIT: One or more rooms providing complete independent living facilities for one family, including permanent provisions for living, sleeping, eating, cooking, and sanitation, but containing only one set of kitchen-related fixtures capable of serving only one kitchen for the exclusive use of one family (source: Moorpark Municipal Code Section 17.08.010).

EASEMENT: A right given by the owner of land to another party for specific limited use of that land. An easement may be acquired by a government through dedication when the purchase of an entire interest in the property may be too expensive or unnecessary.

EFFECTS: "Effects" and "impacts" as used in the *State CEQA Guidelines* are synonymous. Effects include: (a) Direct or primary effects that are caused by the project and occur at the same time and place; (b) Indirect or secondary effects that are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems. Effects analyzed under CEQA must be related to a physical change (source: *State CEQA Guidelines* Section 15358).

EFFLUENT: Wastewater or other liquid, partially or completely treated or in its natural state, flowing from a treatment plant.

EMISSION: An air contaminant released to the atmosphere.

EMISSION FACTOR: The amount of a specified pollutant emitted from a specified polluting source per unit/quantity of material handled, processed, or burned.

EMISSION STANDARDS: For purposes of the air quality analysis in this EIR, means federal Environmental Protection Agency (EPA), California Air Resources Board (ARB), or Ventura County Air Pollution Control District (VCAPCD) standards or limits for air contaminant emissions.

ENCROACHMENT: The occupancy of project right-of-way by non-project structures or objects of any kind or character; also, activities of other parties within the operating right-of-way.

ENDANGERED SPECIES: In accordance with CEQA, "Species" means a species or subspecies of animal or plant or a variety of plant. A species of animal or plant is: "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. A species of animal or plant shall be presumed to be endangered, rare or threatened, as it is listed in: (1) Sections 670.2 or 670.5, Title 14, California; (2) Title 50, Code of Federal Regulations Section 17.11 or 17.12 pursuant to the Federal Endangered Species Act as rare, threatened, or endangered. A species not included in any listing identified in subsection (c) shall nevertheless be considered to be endangered, rare or threatened, if the species can be shown to meet specified criteria. This definition shall not include any species of the Class Insecta that is a pest whose protection under the provisions of CEQA would present an overwhelming and overriding risk to man as determined by: The Director of Food and Agriculture with regard to economic pests; or The Director of Health Services with regard to health risks (source: *State CEQA Guidelines* Section 15380).

ENVIRONMENT: The physical conditions that exist within the area that will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved shall be the area in which significant effects would occur either directly or indirectly as a result of the project. The "environment" includes both natural and man-made conditions (source: *State CEQA Guidelines* Section 15360).

ENVIRONMENTAL DOCUMENTS: Environmental documents means Initial Studies, Negative Declarations, draft and final EIRs, documents prepared as substitutes for EIRs and Negative Declarations under a program certified pursuant to Public Resources Code Section 21080.5, and documents prepared under NEPA and used by a state or local agency in the place of an Initial Study, Negative Declaration, or an EIR (source: *State CEQA Guidelines* Section 15361).

ENVIRONMENTAL IMPACT REPORT: A detailed statement prepared under the California Environmental Quality Act (CEQA) describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects. The term "EIR" may mean either a draft or a final EIR depending on the context. A Draft EIR means an EIR containing the information specified in *State CEQA Guidelines* Subsection 15122 through 15131. A Final EIR means an EIR containing the information contained in the draft EIR, comments either verbatim or in summary received in the review process, a list of persons commenting, and the response of the Lead Agency to the comments received (source: *State CEQA Guidelines* Section 15362).

ENVIRONMENTAL PROTECTION AGENCY: The federal agency with primary responsibility for the implementation of federal environmental statutes, including the Clean Water Act, Clean Air Act, Safe Drinking Water Act, and the Resource Conservation and Recovery Act. California is included within EPA Region IX, headquartered in San Francisco.

EQUIVALENT NOISE LEVEL (L_{eq}): A single-number representation of the fluctuating sound level in decibels over a specified period of time. It is a sound-energy average of the fluctuating level.

EROSION: The process by which material is removed from the earth's surface (including weathering, dissolution, abrasion, and transportation), most commonly by wind or water.

EROSION CONTROL: The stabilization of cut and fill slopes and other areas.

EVAPOTRANSPORATION: The quantity of water transpired (given off), retained in plant tissues, and evaporated from plant tissues and surrounding soil surface. Quantitatively, it is expressed in terms of depth of water per unit area during a specified period of time.

FARMLAND OF LOCAL IMPORTANCE: Lands of importance to the local agricultural economy, as determined by each county's board of supervisors and local advisory committee. Each county has developed its own definition of Farmland of Local Importance (source: Natural Resource Conservation Service).

FARMLAND OF STATEWIDE IMPORTANCE: Lands similar to Prime Farmland but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture. These lands have the same reliable source of adequate quality irrigation water available during the growing season as required for Prime Farmland. The land must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date (source: U.S. Department of Agriculture Soil Conservation Service).

FAULT: A fracture in the earth's crust forming a boundary between rock masses that have shifted. An active fault is a fault that has moved recently and that is likely to again. An inactive fault is a fault that shows no evidence of movement in recent geologic time and no potential for movement in the relatively near future.

FEASIBLE: Feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (source: *State CEQA Guidelines* Section 15364).

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA): The federal agency under which the National Flood Insurance Program is administered.

FILTRATION: The mechanical process that removes particulate matter from water by passing through sand or other media.

FINE PARTICULATE MATTER (PM_{10}): PM_{10} causes a greater health risk than larger-sized particles, since these fine particles can be inhaled more easily and irritate the lungs by themselves and in combination with gases.

FIXED NOISE SOURCE: A stationary device that creates sounds while fixed or motionless, including but not limited to, residential, agricultural, industrial, and commercial machinery and equipment, pumps, fans, compressors, air conditioners, and refrigeration equipment.

FLOOD: A general and temporary condition of partial or complete inundation of normally dry land areas from: (1) overflow of inland or tidal waters; (2) the unusual and rapid accumulation or runoff of surface waters from any source; (3) mudslides (i.e., mudflows) which are proximately caused by flood, as previously described, and are akin to a river of liquid and flowing mud on the surface of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current; and (4) the collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding the cyclical levels that result in flood.

FLOOD INSURANCE RATE MAP (FIRM): Official map of a community on which the administrator has delineated both the special hazard areas and the risk premium zones applicable to the community.

FLOODPLAIN: Any land area susceptible to being inundated by floodwaters from any source.

FLOODPLAIN MANAGEMENT: The operation of an overall program of corrective and preventive measures for reducing flood damage including, but not limited to, emergency preparedness plans, flood control works, and floodplain management regulations.

FLOOR AREA RATIO: The gross floor area of a building or project divided by the project lot area upon which it is located; usually expressed as a numerical value (e.g., a building having 10,000 square feet of gross floor area on a lot of 5,000 square feet. In area has a floor area ratio of 2:1).

FOOTPRINT (Building): The outline of the ground area covered by a building.

FREEBOARD: An additional amount of height above the Base Flood Elevation (in the case of flood control) used as a factor of safety (e.g., 2 feet above the Base Flood) in determining the level at which a structure's lowest floor must be elevated or flood proofed to be in accordance with state or community floodplain management regulations.

GENERAL PLAN: A compendium of city or county policies regarding long-term development, in the form of maps and accompanying text. A General Plan is a legal document required of each local agency by the State of California Government Code Section 65301 and adopted by a city council or board of supervisors. California law requires the preparation of seven elements or chapters in a General Plan: Land Use, Housing, Circulation, Conservation, Open Space, Noise, and Safety. Additional elements are permitted.

GENERAL PLAN CONSISTENCY: Compatibility and agreement with the City of Moorpark General Plan. Consistency exists when the standards and criteria of the City General Plan are met or exceeded (source: Moorpark Municipal Code Section 17.08.010).

GLARE: The effect produced by lighting sufficient to cause annoyance, discomfort, or loss of visual performance and visibility. Glare can occur when the luminaire or associated lens of a light fixture is directly viewable from a location off the property that it serves (source: Moorpark Municipal Code Section 17.30.020).

GRADE: Adjacent ground level. For purposes of building height measurement, grade is the average of the finished ground level at the center of all walls of a building or other datum point established by the division of building and safety (source: Moorpark Municipal Code Section 17.08.0 10).

GRADING: Alteration of existing slope and shape of the ground surface.

GRAZING LAND: Lands on which the existing vegetation is suited to the grazing of livestock. (Natural Resource Conservation Service).

GREENBELT: Statements of local policy adopted by one or more cities and the County of Ventura, either by resolution or ordinance. In Ventura County, greenbelts are areas where cities have agreed not to annex territory and the County has pledged to permit only open space or agricultural uses.

GROSS SITE AREA: The area within the lot lines of a parcel of land before public streets, alleys, easements, or other areas to be dedicated or reserved for public use have been deducted.

GROSS SQUARE FEET: GROSS FLOOR AREA. The total enclosed building area of all floors measured to the outside face of the structural members in exterior walls and including the halls, stairways, elevator shafts at each floor level, service and mechanical equipment rooms, and habitable basement or attic areas, but excluding area of vehicle parking and loading. Parking structures shall not be considered building area for the purposes of calculating allowable floor area ratios.

GROUNDWATER: Water that occurs beneath the land surface and fills partially or wholly pore spaces of the alluvium, soil or rock formation in which it is situated; often confined to aquifers capable of supplying wells and springs. Does not include water that is being produced with oil in the production of oil and gas or in a bona fide mining operation.

GROUNDWATER BASIN: A groundwater reservoir defined by the overlying land surface and the underlying aquifers that contain water stored in the reservoir. Boundaries of successively deeper aquifers may differ and make it difficult to define the limits of the basin.

GROUNDWATER OVERDRAFT: The condition of a groundwater basin in which the amount of water withdrawn by pumping exceeds the amount of water that recharges the basin over a period of years during which water supply conditions approximate average.

GROUNDWATER RECHARGE: The natural process of infiltration and percolation of rainwater from land areas or streams through permeable soils into water-holding rocks that provide underground storage (i.e., aquifers); the action of increasing groundwater storage by natural conditions or by human activity. See also Artificial Recharge.

GROUNDWATER TABLE: The upper surface of the zone of saturation (all pores of subsoil filled with water), except where the surface if formed by an impermeable body.

GROWTH AREA: A geographic subarea used in Ventura County population forecasts to refer to an area where urban development has already taken place or is expected to take place.

GROWTH MANAGEMENT: The use by a community of a wide range of techniques in combination to determine the amount, type, and rate of development desired by the community and to channel that growth into designated areas. Growth management policies can be implemented through growth rates, zoning, capital improvement programs, public facilities ordinances, urban limit lines, standards for levels of service, and other programs.

GROWTH MANAGEMENT PLAN (GMP): A plan developed by the Southern California Association of Governments (SCAG) that contains demographic projections (i.e., housing units, employment, and population for its six-county region [i.e., Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Riverside counties]). The plan provides recommendations for local governments to better accommodate the growth projected by occur and reduce environmental impacts.

GRUBBED: Vegetation that has been removed by mechanical or manual methods.

HABITAT: A place where a plant or animal naturally or normally lives or grows.

HARDPAN: A layer of very hard, often claylike matter under soft soil.

HAZARDOUS MATERIAL: A material or form of energy that could cause injury or illness to persons, livestock, or the natural environment.

HAZARDOUS WASTE: A waste or combination of wastes that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either cause or significantly contribute to an increase in mortality or an increase in serious irreversible illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. A hazardous waste possesses at least one of four characteristics–ignitability, corrosivity, reactivity, or toxicity–or appears on special EPA or state lists. Hazardous waste is regulated under the federal Resource Conservation and Recovery Act and the California Health and Safety Code.

HEIGHT: The vertical distance from the adjacent grade to the highest point of that which is being measured.

HELIPORT: An identifiable area on land or water, including any building or facilities thereon, used or intended to be used for the landing and takeoff of helicopters. Does not include temporary landing and takeoff sites. Refueling and overnight maintenance are permitted.

HELISTOP: An identifiable area on land or water, including any building or facilities thereon, used or intended for the landing and takeoff of helicopters. Does not include temporary landing and takeoff sites. Refueling and overnight maintenance are not permitted.

HIGH FIRE HAZARD AREAS: Certain areas in the unincorporated territory of the county classified by the county fire protection district and defined as any areas within 500 feet of uncultivated brush, grass, or forest-covered land wherein authorized representatives of said district deem a potential fire hazard to exist due to the presence of such flammable material (source: Moorpark Municipal Code Section 17.08.010).

HIGH-OCCUPANCY VEHICLE (HOV): A motor vehicle that is carrying at least a minimum specified number of passengers (normally at least two or more, sometimes three or more). It can be a bus, a taxi with passengers, or a car or van used for carpooling.

HILLSIDE AREA: Any property containing slope areas of 20 percent or greater. The steepness of a slope is defined as the relationship (the ratio) between the changes in elevation (rise) and the horizontal distance (run) over which that change in elevation occurs. The percentage of steepness of any given slope is determined by dividing the rise by the run on the natural slope of land, multiplied by 100.

HISTORIC TREE: A living tree designated by a resolution of the city council as an historic tree because of an association with some event or person of historical significance to the community or because of special recognition due to size, condition, or aesthetic qualities (source: Moorpark Municipal Code Section 12.12.030).

HOT SPOT: A localized concentration of an air pollutant associated with restricted dispersion conditions, often occurring in such places as street intersections or close to the source of emissions.

HOUSEHOLD: The U.S. Census Bureau defines a household as all persons living in a housing unit whether or not they are related. A single person living in an apartment as well as a family living in a house is considered a household. Household does not include individuals in dormitories, prisons, convalescent homes, or other group quarters.

HOUSEHOLD INCOME: The total income of all the persons living in a household. A household is usually described as very low income, low income, moderate income, and upper income based upon household size and income, relative to the regional median income.

HYDRAULICS: The study and technological application of the behavior of fluids.

HYDROCARBONS (HC): These gases represent unburned and wasted fuel. They come from incomplete combustion of gasoline and from evaporation of petroleum fuels.

IMPACT: The effect, influence, or imprint of an activity or the environment. Impacts include: direct or primary effects that are caused by the project and occur at the same time and place; indirect or secondary effects that are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate and related effects on air and water and other natural systems, including ecosystems.

IMPERVIOUS SURFACE: Ground surface that cannot be penetrated by water. Includes paved and compacted surfaces, as well as those covered by buildings.

IMPORTED WATER: Water that has originated from one hydrologic region and is transferred to another hydrologic region.

IMPOUNDMENT: A body of water, such as a pond, confined by a dam, dike, floodgate, or other barrier.

INCOME CATEGORY: Four categories are used to classify a household according to the median income for the county. Under state housing statutes, these categories are as follows: Very Low (0 to 50 percent of county median); Low (50 percent to 80 percent of county median); Moderate (80 percent to 120 percent of county median); and Upper (over 120 percent of county median).

INDIRECT IMPACT: Effects caused by an action that are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

INDIRECT SOURCE: Any structure or installation that attracts an activity that creates emissions of pollutants. For example, a major employment center, a shopping center, an airport, or a stadium can all be considered to be indirect sources. For purposes of air quality, facilities, buildings, structures, properties, and/or roads that, through their construction, indirectly contribute to air pollution. This includes projects and facilities that attract or generate mobile sources activity (autos and trucks), such as shopping centers, employment sites, schools, and housing developments that result in emissions of any regulated air pollutant.

INFILTRATION: The introduction of underground water, such as groundwater, into wastewater collection systems. Infiltration results in increased wastewater flow levels.

INFLOW: Surface water, such as rainfall runoff, that enters a wastewater collection system through manhole covers and joints or cracks in pipes. Inflow results in increased wastewater flow levels.

INFILTRATION SYSTEM: An infiltration basin designed to capture runoff volume from the water quality design storm and infiltrate it to the soil.

INFLOW: Surface water, such as rainfall runoff, that enters a wastewater collection system through manhole covers and joints or cracks in pipes. Inflow results in increased wastewater flow levels.

INFRASTRUCTURE: Permanent utility installations, including roads, water supply lines, sewage collection pipes, and power and communications lines.

INITIAL STUDY: Under CEQA, a preliminary analysis prepared by the Lead Agency to determine whether an EIR, a Negative Declaration, or Mitigated Negative Declaration must be prepared, or to identify the significant environmental effects to be analyzed in an EIR (source: *State CEQA Guidelines* Section 15365).

INSTITUTIONAL USE: A non-profit or quasi-public use or institution such as a church, library, public or private school, hospital, or municipally owned or operated building, structure, or land used for public purpose.

INTEGRATED WASTE MANAGEMENT BOARD (IWMD): The state agency within Cal EPA responsible for solid waste management (non-hazardous).

INTERSECTION CAPACITY: The maximum number of vehicles that has a reasonable expectation of passing through an intersection in one direction during a given period under prevailing roadway and traffic conditions.

INTERSECTION CAPACITY UTILIZATION METHOD (ICU): A method of analyzing intersection level of service by calculating a volume-to-capacity (V/C) ratio for each governing "critical" movement during a traffic signal phase. The V/C ratio for each phase is summed with the others at the intersection to produce an overall V/C ratio for the intersection as a whole. The ICU is usually expressed as a percentage. The percentage represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity. The V/C ratio represents the percentage of intersection capacity used. For example, a V/C ratio of 0.85 indicates that 85 percent of capacity is being used.

INTRUSIVE NOISE: Noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or information content as well as the prevailing ambient noise level.

INVERSION LAYER: A condition in the atmosphere through which the temperature increases with altitude, holding cooler surface air down along with its pollutants.

JOBS/HOUSING BALANCE; JOBS/HOUSING RATIO: The jobs/housing ratio divides the number of jobs in an area by the number of employed residents. A ratio of 1.0 typically indicates a balance. A ratio greater than 1.0 indicates a net in-commute; less than 1.0 indicates a net out-commute.

KILOWATT (kW): One kilowatt is equal to 1,000 watts. Refers to the instantaneous amount of electricity used or generated.

LANDFILL: An area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile.

LAND USE: The purpose or activity for which a piece of land or its building is designed, arranged, or intended, or for which it is occupied or maintained.

LAND USE PLAN: An adopted map depicting the approximate location of residential, commercial, public, semi-public, and private uses, open space, and road systems with a statistical summary of areas and densities for these land uses.

LEAD AGENCY: The public agency that has the principal responsibility for carrying out or approving a project. The Lead Agency will decide whether an EIR or Negative Declaration will be required for the project and will cause the document to be prepared (source: *State CEQA Guidelines* Section 15367).

LEVEL OF SERVICE (LOS): LOS is the qualitative measure that incorporates the collective factors of speed, travel time, traffic interruption, freedom to maneuver, safety, driving comfort and convenience, and operating costs provided by a highway facility under a particular volume condition. LOS A indicates best/free flow conditions; LOS C represents a zone of stable flow and is considered average operation; LOS D is often used as the design service level for intersection peak period operations, as the cost of proving higher service levels during peak periods can be prohibitive. LOS E represents maximum physical carrying capacity; and LOS F indicates system failure.

LINE SOURCE: A long, narrow source of air pollutant emissions such as a roadway or runway.

LIQUEFACTION: A geologic phenomenon in which surface and near-surface materials (soils, alluvium, etc.) behave like a liquid during seismic shaking, often causing failure of soils to support structures.

LOCAL AGENCY: Local agency means any public agency other than a state agency, board, or commission. Local agency includes but is not limited to cities, counties, charter cities and counties, districts, school districts, special districts, redevelopment agencies, local agency formation commissions, and any board, commission, or organizational subdivision of a local agency when so designated by order or resolution of the governing legislative body of the local agency (source: *State CEQA Guidelines* Section 15368).

LOCAL ENFORCEMENT AGENCY (LEA): The local government entity that acts in the capacity as solid waste enforcement agency ([14 ccr 1801 1(a)(14)].

LOT: An area of land created or established for purposes of sale, lease, finance, division of interest or separate use, separated from other lands by description on a final map or parcel map.

LUMINAIRE OR LUMINARY: The light-producing element of a light fixture. Examples are bulbs and tubes. Direct viewing of luminaries of greater than 1,000 lumens per fixture is undesirable (source: Moorpark Municipal Code Section 17.30.020).

MANUFACTURED SLOPE: A slope crated by grading that consists of cut and fill material.

MASS GRADING: A grading technique in which all lots, building pads, and streets are generally graded over the entire area resulting in the disruption of the majority of the on-site natural grade and vegetation and/often resulting in, but not required to result in, a successive pad/terrace configuration.

MATERIALS RECOVERY FACILITY: A solid waste facility where solid wastes or recyclable materials are sorted or separated, by hand or by use of machinery, for the purposes of recycling or composting. [14 CCR 18720(a)(36)].

MATURE TREE: A living tree with a cross-sectional area of all major stems, as measured 4.5 feet above the root crown, of 72 or more inches (source: Moorpark Municipal Code Section 12.12.030).

MAXIMUM CREDIBLE EARTHQUAKE: The largest Richter magnitude (M) seismic event that appears to be reasonably capable of occurring under the conditions of the presently known geological framework.

MAXIMUM EXTENT PRACTICABLE (MEP): The extent to which storm water management practices are required to be implemented to reduce storm water pollution. All management practices that are effective at reducing storm water pollution are required to be implemented, except when any of the following conditions are met: (1) other effective management practices would achieve greater or substantially the same pollution control benefits; (2) the management practices would not be technically feasible; (3) the cost of management practice implementation would greatly outweigh pollution control benefits; or, (4) implementation of the management practice would compromise other legal or institutional constraints, expectations, and obligations imposed by federal or state statute or case law.

MEDIAN INCOME: The annual income of each household size within a region that is defined annually by HUD. Half of the households in the region have incomes above the median and half have incomes below the median.

MEGAWATT (mW): One megawatt is equal to 1,000 kilowatts. Refers to the instantaneous amount of electricity being used or generated.

MITIGATION: Mitigation refers to (1) avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (3) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or (5) compensating for the impact by replacing or providing substitute resources or environments (source: *State CEQA Guidelines* Section 15370).

MITIGATION MEASURE: Action taken to reduce or eliminate environmental impacts. Mitigation includes: avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments.

MOBILE SOURCES: A source of air pollution that is related to transportation vehicles, such as automobiles or buses.

MODULAR BUILDING: A building that is usually transported to its site on a steel frame or special trailer because it does not have a permanent chassis like a manufactured (mobile) home.

MOTOR VEHICLE: A motor vehicle shall include any and all self-propelled vehicles as defined in the California Motor Vehicle Code including all on-highway type motor vehicles subject to registration under said code and all off-highway type motor vehicles subject to identification under said code.

MUDFLOW (MUDSLIDE): A river flow or inundation of liquid mud down a hillside, usually as a result of a dual condition of loss of brush cover and the subsequent accumulation of water on or under the ground, preceded by a period of unusually heavy or sustained rain.

MULTIPLE-FAMILY (MULTI-FAMILY) DWELLING UNIT: A building or portion of a building that accommodates three or more families, though each dwelling unit is only occupied by one household.

NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS): Standards set by the federal Environmental Protection Agency for the maximum levels of air pollutants that can exist in the ambient air without unacceptable effects on human health or public welfare.

NATIVE OAK TREE: A living tree of the genus Quercus and species lobata, agrifolia, dumosa, or hybrids thereof (source: Moorpark Municipal Code Section 12.12.030; Ord. 101 Section 1 (part), 1988).

NATURAL GRADE: The grade unaffected by construction techniques such as fill, landscaping, or berming.

NAVIGABLE WATERS: The "waters of the United States" that are currently used, where used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide; interstate waters; and intrastate lakes, rivers, streams, mudflats, sandflats, and wetlands.

NITROGEN OXIDES (NO_X): Chemical compounds containing nitrogen and oxygen; reacts with volatile organic compounds, in the presence of heat and sunlight to form ozone. It is also a major precursor to acid rain.

NITROGEN DIOXIDE (NO_2): A secondary contaminant formed through a reaction between nitric oxide (NO) and atmospheric oxygen, irritates the lungs at high concentrations and contributes to ozone formation.

NOISE: Annoying, harmful, or unwanted sound.

NOISE BARRIER: A wall or other solid structure constructed with the objective of attenuating (i.e., reducing) noise behind the barrier; commonly, a noise wall along a roadway.

NOISE DISTURBANCE: Any sound which, as judged by the Director of Community Development, (1) endangers or injures the safety or health of human beings or animals, or (2) annoys or disturbs reasonable persons of normal sensitivities, or (3) endangers or injures personal or real property, or (4) violates the factors set forth in the Chapter 17.53 of the Moorpark Municipal Code. Compliance with the quantitative standards set forth in Chapter 17.53 of the Moorpark Municipal Code shall constitute elimination of a noise disturbance.

NOISE SENSITIVE LAND USE: Any land use (i.e., residential development) or designated geographic area (i.e., hospital complex) where "intrusive noise" is incompatible with the conduct of the noise sensitive uses or constitutes a "noise disturbance" for residents or works.

NON-GROWTH AREA: A geographic subarea used in Ventura County population forecasts to refer to an area where urban development is not expected to occur.

NON-POINT SOURCE: Air pollution sources that are not at individual, stationary locations, i.e., mobile source or area source.

NON-POINT SOURCE DISCHARGE: Discharge from a diffuse pollution source (i.e., without a single point of origin or not introduced into a receiving stream from a specific outlet).

NON-STORM WATER DISCHARGE: Any discharge to a storm drain system or receiving water that is not composed entirely of storm water.

NOTICE OF COMPLETION: A brief notice filed with the Office of Planning and Research (OPR) by a Lead Agency as soon as it has completed a draft EIR, and is prepared to send out copies for review (source: *State CEQA Guidelines* Section 15372).

NOTICE OF DETERMINATION: A brief notice to be filed by a public agency after it approves or determines to carry out a project which is subject to the requirements of CEQA (source: *State CEQA Guidelines* Section 15373).

NOTICE OF PREPARATION: A brief notice sent by a Lead Agency to notify responsible agencies, trustee agencies, and involved federal agencies that the Lead Agency plans to prepare an EIR for the project. The purpose of the notice is to solicit guidance from those agencies as to the scope and content of the environmental information to be included in the EIR. Public agencies are free to develop their own formats for this notice (source: *State CEQA Guidelines* Section 15375).

NPDES (National Pollutant Discharge Elimination System): NPDES is the national program for administering and regulating discharges to waterways according to the Clean Water Act (CWA). In California, the State Water Resources Control Board and the nine Regional Water Quality Control Boards are responsible for administering the NPDES storm water program.

OPEN SPACE: Land that has been left in its natural state and has not been developed with primary or accessory structures.

OXIDES OF NITROGEN: A reddish-brown gas with an odor similar to bleach. The major source of this pollutant is the high temperature combustion of fossil fuels. Health effects include irritation and damage to lungs and lower resistance to respiratory infections.

OZONE (O_3): A compound consisting of three oxygen atoms that is the primary constituent of smog. It is formed through chemical reactions in the atmosphere involving volatile organic compounds, nitrogen oxides, and sunlight. Ozone can irritate the lungs as well as damage to trees, crops, and materials. There is a natural layer of ozone in the upper atmosphere that shields the earth from harmful ultraviolet radiation. Ozone is a criteria pollutant.

PM_{10}: See Fine Particulate Matter.

PARCEL: The basic unit of land entitlement. A designated area of land established by plat, subdivision, or otherwise legally defined and permitted to be used or built upon.

PARTICULATE MATTER-FINE ($PM_{2.5}$): $PM_{2.5}$ is a mixture of very small particulates with an aerodynamic diameter equal to or less than 2.5 microns. $PM_{2.5}$ consists of particles directly emitted into the air and particulates formed in the air from the chemical transformation of gaseous pollutants. $PM_{2.5}$ particulates are emitted from activities such as industrial and residential combustion, and from vehicle exhaust. Particles 2.5 microns or smaller infiltrate the deepest portions of the lungs, increasing the risks of long-term disease, including chronic respiratory disease, cancer, and increased and premature death.

PARTICULATE MATTER-FINE (PM_{10}): PM_{10} is any particulate matter with an aerodynamic diameter equal to or less than 10 microns. PM_{10} consists of particles directly emitted into the air and particulates formed in the air from the chemical transformation of gaseous pollutants. PM_{10} particulates are emitted from activities such as industrial and residential combustion, and from vehicle exhaust. PM_{10} causes adverse health effects, atmospheric visibility reduction. It is a criteria pollutant.

PARTS PER MILLION (ppm): The number of weight or volume units of a minor constituent present within each 1 million units of the major constituent of a solution or mixture, such as salts in water.

PASSENGER TRIPS: Relate to the volume of passenger service provided by public transportation–such as buses, trains, and aircraft.

PEAK HOUR OR PEAK PERIOD: Traffic volumes are not constant throughout the day. Peak hours are the times during which volumes are significantly higher than others. Most areas have two peak hours–morning while people travel to work and late afternoon or evening as they leave work and return home. In some cases as third, though usually smaller, peak occurs during the middle of the day. As development intensifies and traffic volumes increase, the durations of the peaks are extended until eventually the peak hour becomes a peak period which may last for 2 or 3 hours. Peak period volumes are important as these are the times of day when the most severe congestion occurs, and intersections must be designed to accommodate these volumes if smooth traffic flow is to be maintained. The peak hour refers to the 1-hour period during the AM peak period (typically 7 AM to 9 AM) and the 1-hour period during the PM peak period (typically 3 PM to 6 PM) during which the greatest number of vehicle trips are generated by a given land use or are traveling on a given roadway.

PERCENT SLOPE: A common way of expressing the steepness of the slope of terrain, which is derived by dividing the change in elevation by the horizontal distance traversed. An increase of 20 feet elevation over a 100-foot distance is a 20 percent slope.

PERCHED GROUNDWATER: Groundwater supported by a zone of material of low permeability located above an underlying main body of groundwater with which it is not hydrostatically connected.

PERCOLATION: The downward movement of water through the soil or alluvium to the groundwater table.

PERMEABILITY (soil): The capability of soil or other geologic formations to transmit water.

PERMIT: The possession of a permit issued by the city, or where no permits are issued, the sanctioning of the activity by the jurisdiction as noted in a public record.

PERSON: Person includes any person, firm, association, organization, partnership, business, trust, corporation, limited liability company, company, district, city, county, city, county, town, the state, and any of the agencies or political subdivisions of such entities (source: *State CEQA Guidelines* Section 15376).

PERSON TRIPS: Indicates the number of people, and are of interest in situations where there may be opportunities to accomplish more one-person trips with less vehicle trips–such as a carpool.

PESTICIDE: Any material used to control pests. Includes insecticides, herbicides, rodenticides, and germicides.

pH: A measure of acidity or alkalinity of a material, liquid, or solid. pH represent, on a scale of 0 to 14 with 7 representing a neutral state, 0 representing the most acid and 14 the alkaline.

PLANT COMMUNITY: A group of plant species commonly occurring together in roughly similar proportions.

POINT SOURCE: A pollutant source that is fixed in location and that releases pollutants through a relatively small area, such as an air emissions stock or a pipeline outfall.

POTABLE WATER: Suitable and safe for drinking.

PRECURSOR: A chemical compound that leads to the formation of a pollutant. Reactive organic gases and nitrogen oxides are precursors of photochemical oxidants.

PRIME FARMLAND: Lands with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. The land must be supported by a developed irrigation water supply that is dependable and of adequate quality during growing season. The land must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date (source: Natural Resource Conservation Service).

PRIVATE PROJECT: A "private project" means a project that will be carried out by a person other than a governmental agency, but the project will need a discretionary approval from one or more governmental agencies for: (1) a contract or financial assistance, or (2) a ease, permit, license, certificate, or other entitlement for use (source: *State CEQA Guidelines* Section 15377).

PROJECT: Project means the whole of an action that has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1) an activity directly undertaken by any public agency including but not limited to public works construction and related activities clearing or grading of land, improvements to existing public structures, enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700; (2) an activity undertaken by a person which is supported in whole or in part through public agency contacts, grants, subsidies, loans, or other forms of assistance from one or more public agencies; (3) an activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies. Project does not include: (1) Proposals for legislation to be enacted by the State Legislature; (2) Continuing administrative or maintenance activities, such as purchases for supplies, personnel-related actions, general policy and procedure making (except as they are applied to specific instances covered above); (3) The submittal of proposals to a vote of the people of the state or of a particular community; (4) The creation of government funding mechanisms or other government fiscal activities, which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment. The term ″project″ refers to the activity which is being approved and which may be subject to several discretionary approvals by governmental agencies. The term "project" does not mean each separate governmental approval. Where the Lead Agency could describe the project as either the adoption of a particular regulation under subsection (a)(1) or as a development proposal which will be subject to several governmental approvals under subsections (a)(2) or (a)(3), the Lead Agency shall describe the project as the development proposal for the purpose of environmental analysis. This approach will implement the Lead Agency principle as described in Article 4 (source: *State CEQA Guidelines* Section 15378).

PROJECT LOT AREA. The total land area of a project after all required dedications or reservations for public improvements, including, but not limited to, streets, parks, schools, flood control channels, etc.

PROMINENT LANDFORM OR RIDGELINE: A visually prominent landform or ridgeline means any landform visible from the valley floor that forms a part of the skyline or is seen as a distinct edge against a backdrop of land at least 500 feet horizontally behind it.

PROPERTY LINE: Boundary line between two or more adjacent legal lots as defined in the City of Moorpark Municipal Code.

PUBLIC AGENCY: Public agency includes any state agency, board, or commission and any local or regional agency, as defined in these Guidelines. It does not include the courts of the state. This term does not include agencies of the federal government (source: *State CEQA Guidelines* Section 15379).

PUBLIC RIGHT-OF-WAY: Any street, avenue, boulevard, highway, sidewalk, or alley or similar place that is owned or controlled by a governmental entity.

PUBLIC SPACE: Any real property or structures thereon which are owned or controlled by a governmental entity.

PUMP STATION: A complete pumping installation, including a storage box, pump or pumps, standby pumps, connecting pipes, electrical equipment, pump house, and outlet chamber.

RARE SPECIES: In accordance with the *State CEQA Guidelines*, a "Species" means a species or subspecies of animal or plant or a variety of plant. A species of animal or plant is: "Rare" when either: (a) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or (b) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act. A species of animal or plant shall be presumed to be endangered, rare or threatened, as it is listed in: (1) Sections 670.2 or 670.5, Title 14, California; (2) Title 50, Code of Federal Regulations Section 17.11 or 17.12 pursuant to the Federal Endangered Species Act as rare, threatened, or endangered. A species not included in any listing shall nevertheless be considered to be endangered, rare or threatened, if the species can be shown to meet specific criteria. This definition shall not include any species of the Class Insecta that is a pest whose protection under the provisions of CEQA would present an overwhelming and overriding risk to man as determined by: The Director of Food and Agriculture with regard to economic pests; or The Director of Health Services with regard to health risks (source: *State CEQA Guidelines* Section 15380).

REACTIVE ORGANIC COMPOUND (ROC)/REACTIVE ORGANIC GASES (ROG): Any organic compound containing at least one carbon atom, except for specific exempt compounds found to be non-photochemically reactive and thus not participating in smog formation. Classes of hydrocarbons (olefins, substituted aromatics, and aldehydes) that are likely to react with ozone and nitrogen dioxide in the atmosphere to form photochemical smog. Also referred to as non-methane organic compounds or volatile organic compounds.

RECHARGE: The physical process where water naturally percolates or sinks into a groundwater basin.

RECHARGE BASIN: A surface facility, often a large pond, used to increase the infiltration of surface water into a groundwater basin.

REDEVELOPMENT AGENCY: California law provides cities with the authority to establish a Redevelopment Agency with the scope and financing mechanisms necessary to remedy blight and provide stimulus to eliminate deteriorated conditions. The law provides for the planning, development, redesign, clearance, reconstruction, or rehabilitation, or any combination of these factors, and the provision of public and private improvements as may be appropriate in the interest of the general welfare by the Redevelopment Agency. Redevelopment law requires a Redevelopment Agency to set aside 20 percent of all tax increment dollars generated from each redevelopment project area for the purpose of increasing and improving the community's supply of housing for low and moderate-income households.

RESIDENTIAL LAND USE: Any parcel or area of land devoted to housing and ancillary uses.

RESPONSIBLE AGENCY: A public agency that proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency that have discretionary approval power over the project (source: *State CEQA Guidelines* Section 15381).

RESERVOIR: A pond, lake, tank, basin, or other space either natural or created in whole or in part by the building of engineering structures.

RICHTER SCALE: A logarithmic scale developed in 1935/36 by Dr. Charles F. Richter and Dr. Beno Gutenberg to measure earthquake magnitude by the amount of energy released, as opposed to earthquake intensity as determined by local effects on people, structures, and earth materials.

RIGHT-OF-WAY (ROW): That portion of property that is dedicated or over which an easement is granted for public streets, utilities, or alleys.

RISK ASSESSMENT: The qualitative and quantitative evaluation of the risk posed to human health and/or the environment by the actual or potential presence and/or use of specific pollutants.

SALINITY: Generally, the concentration of mineral salts dissolved in water. Salinity may be measured by weight (total dissolved solids – TDS), electrical conductivity, or osmotic pressure. Where seawater is known to be the major source of salt, salinity is often used to refer to the concentration of chlorides in the water.

SANITARY SEWER: Underground pipes that carry off only domestic or industrial waste, not storm water.

SECONDARY TREATMENT: Generally, a level of treatment that produces 85 percent removal efficiencies for biological oxygen demand and suspended solids. Usually carried out through the use of trickling filters or by the activated sludge process.

SEDIMENT: Organic or inorganic material that is carried by or is suspended in water and that settles out to form deposits in the storm drain system or receiving waters.

SEDIMENTATION: Process by which material suspended in water is deposited in a body of water.

SENSITIVE RECEPTORS: Refers to sensitive populations, such as children, athletes, elderly, and sick, that are more susceptible to the effects of air pollution that the population at large. For purposes of air quality, facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and day care centers.

SETBACK: The minimum distance by which structures are to be separated from the boundary lines of the lot on which they are located, in order to provide an open yard area which is unoccupied and unobstructed from the ground upward (source: Moorpark Municipal Code Section 17.08.010).

SIGNIFICANT IMPACT or SIGNIFICANT EFFECT ON THE ENVIRONMENT: As defined by the *State CEQA Guidelines*, a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant. The lead agency will determine whether a project may have a significant effect on the environment based on substantial evidence in light of the whole record (source: *State CEQA Guidelines* Section 15382).

SINGLE EVENT NOISE EXPOSURE LEVEL (SENEL): In decibels, SENEL shall mean the sound exposure level of a single event, such as an aircraft fly-by, measured over the time interval between the initial and final times for which the sound level of a single event exceeds the threshold sound level. SENEL is an A-weighted measure of an individual flyover, which time integrates the level accumulated during this event with reference to a duration of one second. Because of the integration process, SENEL takes into consideration both the duration and the magnitude of the noise signal.

SINGLE-FAMILY HOUSING: A conventionally built house consisting of a single dwelling unit occupied by one household.

SLOPE: Any area with a grade of 1:2 (vertical to horizontal) or more.

SOLID WASTE: Any non-hazardous garbage, refuse or sludge, which is primarily solid but may also include portions of liquid, semi-solid or contained gaseous material resulting from residential, industrial, commercial, agricultural, mining operations, and community activities.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS (SCAG): The organization, known in federal law as a Council of Governments or Metropolitan Planning Organization. As the designated Metropolitan Planning Organization, Southern California Association of Governments (SCAG) represents the counties of Imperial, Riverside, San Bernardino, Orange, Los Angeles, and Ventura, and the cities within these six counties. SCAG is mandated by the federal government to research and prepare plans for transportation, growth management, hazardous waste management, and air quality. Additional mandates exist at the state level.

SPHERE OF INFLUENCE: A plan for the probable physical boundaries and service area for a local agency, as determined by the Local Agency Formation Commission. Typically, a sphere of influence is the territory that a city or district is expected to annex. Therefore, spheres of influence are usually larger in area than the actual boundaries of a city or district, although they can be the same as the city or district boundaries.

SPILLOVER. Spillover occurs when the illumination intensity outside the property boundaries exceeds 1 foot-candle (source Moorpark Municipal Code 17.30.020; Ord. 255 Section 2 (part), 1999).

STATE AGENCY: State agency means a governmental agency in the executive branch of the state Government or an entity that operates under the direction and control of an agency in the executive branch of state government and is funded primarily by the state treasury (source: *State CEQA Guidelines* Section 15383).

STATE IMPLEMENTATION PLAN (SIP): A documents prepared by each state, and subject to federal Environmental Protection Agency (EPA) approval, which describes existing air quality conditions and identifies actions and programs to be undertaken by the state and its subdivisions to attain and maintain National Ambient Air Quality Standards. A SIP is a compilation of all of a state's air quality plans and rules that have been approved by the federal EPA. In California, air districts prepare nonattainment plans that are included in the state's SIP. The applicable SIP in Ventura County is the most recent Ventura County Air Quality Management Plan (AQMP) approved by the federal EPA plus all Ventura County Air Pollution Control District (AQMP) rules and regulations approved by the federal EPA.

STATE WATER PROJECT (SWP): An aqueduct system that delivers water from Northern California to central and Southern California.

STATIONARY SOURCE: A source of air pollution that is not mobile, such as a heating plant or an exhaust stack from a laboratory.

STORM DRAIN INLET: A drainage structure that collects surface runoff and conveys it to an underground storm drain system.

STORM WATER: Storm water means storm water runoff, snowmelt runoff, and surface runoff and drainage.

STORM WATER DRAINAGE SYSTEM: Streets, gutters, inlets, conduits, natural or artificial drains, channels and watercourses, or other facilities that are owned, operated, maintained, and used for the purpose of collecting, storing, transporting, or disposing of storm water.

STRUCTURE: Anything constructed or erected on the ground, or that requires location on the ground, or is attached to something having a location on or in the ground. Structure does not include fences or walls used as fences less than fix feet in height, or plant materials (source: Moorpark Municipal Code Section 17.08.010).

SUBDIVISION: The division of a lot, tract, or parcel of land in accordance with the Subdivision Map Act (California Government Code Section 66410 et seq.).

SUBDIVISION DEVELOPMENT PLAN: Specific development plans for an unapproved tentative map including, but not limited to plot plans, building elevations, grading plans, and landscape plans applicable to individual lots within a tentative map.

SUBSIDENCE: Sinking of the land surface due to a number of factors, of which groundwater extraction is one.

SUBSTANTIAL EVIDENCE: Substantial evidence as used in the *State CEQA Guidelines* means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Whether a fair argument can be made that the project may have a significant effect on the environment is to be determined by examining the whole record before the lead agency. Argument, speculation, unsubstantiated opinion or narrative, evidence that is clearly erroneous or inaccurate, or evidence of social or economic impacts that do not contribute to or are not caused by physical impacts on the environment does not constitute substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts (source: *State CEQA Guidelines* Section 15384).

SULFUR DIOXIDE (SO_2): A colorless, extremely irritating gas or liquid. Sulfur dioxide enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. There are National Ambient Air Quality Standards and California Air Quality Standards for sulfur dioxide.

SURFACE WATER: Water in lakes, streams or rivers, as distinct from subsurface groundwater.

SURFACE WATER RUNOFF: Precipitation, snowmelt, or irrigation water in excess of what can infiltrate the soil surface and be stored in small surface depressions.

TERTIARY TREATMENT: The treatment of wastewater beyond the secondary or biological stage. Normally implies the removal of nutrients, such as phosphorous and nitrogen, and a high percentage of suspended solids.

THERM: The amount of energy necessary to raise 100,000 pounds of water one degree Fahrenheit.

THREATENED SPECIES: A species of animal or plant is endangered when its survival and reproduction in the wild are in immediate jeopardy form one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, disease, or other factors. Although when not presently threatened with extinction, the species exists in such small numbers that it may become endangered if its environment worsens. A species of animal or plant shall be presumed to be rare or endangered as it is listed in: Sections 670.2 or 670.5, Title 14, California Code of Regulations; or Title 50, Code of Federal Regulations Sections 17.11 or 17.12 pursuant to the Federal Endangered Species Act as rare, threatened, or endangered.

TOPOGRAPHIC MAP: A map showing the various topographic features of a given area, such as hills, valleys, mountains, slope of land surfaces, usually by means of contours or lines connecting points of equal elevation.

TOPOGRAPHY: The physical shape of the ground surface.

TOTAL DISSOLVED SOLIDS (TDS): A quantitative measure of the residual minerals dissolved in water that remains after evaporation of a solution. Usually expressed in milligrams per liter or parts per million.

TOXIC AIR CONTAMINANT: Air pollutants (excluding ozone, carbon monoxide, $PM_{10,}$ sulfur dioxide, and nitrogen dioxide) that may reasonably be anticipated to cause cancer, developmental effects, reproductive dysfunctions, neurological disorders, heritable gene mutations, or other serious or irreversible acute or chronic health effects in humans. Toxic air pollutants are regulated under different federal and state regulatory processes than criteria pollutants. Health effects from exposure to toxic air pollutants may occur at extremely low levels.

TRANSPORTATION CONTROL MEASURES (TCMs): Air pollution control measures in the Air Quality Management Plan that are directed to reducing air emissions by reducing vehicle travel. Federal and state law specifies requirements for TCMs. Steps taken by a locality to adjust traffic patterns (e.g., bus lanes, right turn on red) or reduce vehicle use (ridesharing, high-occupancy vehicle lanes) to reduce vehicular emissions of air pollutants.

TRANSPORTATION DEMAND MANAGEMENT (TDM): Alternative travel behavior, usually on the part of the commuters, through programs of incentives, services, and policies. The TDM Facilities Ordinance addresses alternatives to single-occupancy motor vehicles such as carpooling and vanpooling, telecommuting, and changes in work schedules that move trips out of the peak travel period or altogether eliminate them(as in the case of compressed work weeks) (source: Moorpark Municipal Code Section 17.08.010).

TRIP: The trip is the basic measurement used to describe transportation volumes. A trip consists of one unit traveling from one point to another. The unit may be vehicles, persons, or passengers.

TRIP ASSIGNMENT: The allocation of vehicle trips to available routes between locations in a traffic study area.

TRIP END: Every trip has two ends–an origin and a destination. Conversely, every origin or destination generates two trip ends–one arriving and one leaving. For example, traveling from home to work and back involves two trips–home to work and work to home, and four trip ends– home as the origin and home as the destination. Quantification of trip ends is useful in describing the contribution of specific land uses to traffic volumes.

TRIP GENERATION: The number of vehicle trip ends associated with (i.e., produced by) a particular land use or traffic study site. A trip end is defined as a single vehicle movement. Roundtrips consist of two trip ends.

TRUSTEE AGENCY: A state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the state of California. Trustee agencies include the California Department of Fish and Game, State Lands Commission, the State Department of Parks and Recreation, and the University of California (with regard to sites within the Natural Land and Water Reserves System) (source: *State CEQA Guidelines* Section 15386).

UNIQUE FARMLAND: Lands of lesser quality soils used for the production of the state's leading agricultural cash crops. These lands are usually irrigated but may include non-irrigated orchards or vineyards as found in some climate zones in California (Natural Resource Conservation Service).

URBAN AND BUILT-UP LAND: Lands occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel (Natural Resource Conservation Service).

URBANIZED AREA: Urbanized area means a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile. A Lead Agency shall determine whether a particular area meets the criteria in this section either by examining the area or by referring to a map prepared by the U.S. Bureau of the Census which designates the area as urbanized. Use of the term "urbanized area" in Section 15182 is limited to areas mapped and designated as urbanized by the U.S. Bureau of the Census (source: *State CEQA Guidelines* Section 15387).

VALLEY FLOOR: The area of the City of Moorpark as show on Exhibit A of Moorpark Municipal Code Ordinance 207 Section 3 (part), 1995.

VARIANCE: An adjustment in regulations. Variances are based on discretionary decisions and may be granted to allow deviations from ordinance regulations governing such development factors such as setbacks, height, lot coverage, lot area and width, signs, off-street parking, landscaping, and wall, fencing, and screening standards. Variances may not be granted to authorize a use or activity that is not otherwise expressly authorized by the zone regulations governing the property (source: Moorpark Municipal Code 17.44.030).

VEHICLE MILES TRAVELED (VMT): A measure of both the volume and extent of motor vehicle operation; the total number of vehicle miles traveled within a specified geographical area (whether the entire country or a smaller area) over a given period of time.

VEHICLE TRIP: Vehicle trip describes the number of vehicles traveling from point to point.

VEHICLE TRIP ENDS: A single or one-direction vehicle movement with either the origin or destination inside a traffic study site.

VENTURA COUNCIL OF GOVERNMENTS (VCOG): A governmental organization comprised of the County of Ventura and 10 cities in Ventura County. The purpose of VCOG is to provide a vehicle for the member entities and other interested persons (public and private) to engage in regional, cooperative, and comprehensive planning. VCOG has historically been under contract to the Southern California Association of Governments to identify and refine regionally significant transportation problems, needs, investments, and programs related to the development of the Regional Transportation Plan.

VIEW POINT: A location from which a site is visible.

VIEWSHED: The geographic area from which a site is visible, a collection of viewpoints.

VOLUME-TO-CAPACITY RATIO (V/C): In reference to public services or transportation, ratio of peak hour use to capacity.

VOLATILE ORGANIC COMPOUND (VOC): Any organic compound containing at least one carbon atom, except for specific exempt compounds found to be non-photochemically reactive and thus not participating in smog formation. VOC is synonymous with reactive organic gases and reactive organic compounds.

WASTE STREAM: Any and all waste that has been generated and is being processed toward permanent disposition.

WASTEWATER: Water that has been previously used by a municipality, industry, or agriculture and has suffered a loss of quality as a result of use.

WASTEWATER RECLAMATION: Treatment and management of municipal, industrial, or agricultural wastewater to produce water of suitable quality for additional beneficial uses.

WATERSHED: The total land area that from which water drains or flows to a river, stream, lake, or other body of water.

WEEKDAY: Any day, Monday through Friday, which is not a legal holiday observed by the City of Moorpark (Ordinance 245 Section 2 (part), 1998).

WETLANDS: An area at least periodically wet or flooded; where the water table stands at or above the land surface (bogs and marshes). Also those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

WILDLIFE CORRIDORS: A natural corridor, such as an undeveloped ravine, that is frequently used by wildlife to travel from one area to another.

ZONING: The division of a municipality into districts for the purpose of regulating land use, types of buildings, required yards and setbacks, parking, and other prerequisites to development. Zones are generally shown on a map and the text of the zoning ordinance specifies requirements for each zoning category.